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Received 22 March,
1875.

ELEMENTS OF PSYCHOLOGY.

PART I.

BY J. D. MORELL, A.M.

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ANALYSIS OF
THE INTELLECTUAL POWERS.

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PREFACE.

It is a truth, now well established, that human knowledge, in the *scientific* form, follows a determinate law of development. The *facts* of nature and of mind have, indeed, lain open to free inspection from the beginning; and, in every period, have excited a deep longing, amongst the reflective of mankind, to have them interpreted and explained. But whilst the eye of human curiosity has been thus ranging over the whole circuit both of thought and being, and mind has baffled itself in struggling with the mystery of the universe, it is only by a gradual, and what has been, until lately, a *secret* law of evolution, that science has appropriated the facts for its own, and penetrated them by the clear light of reason.

The intellect of man, when it first plunged unprepared into the midst of the world's phenomena, soon became confounded and dismayed by their infinite variety. To bring some kind of unity into the chaos, it hurried forward to the construction of theories, which might save it from hopeless confusion, if not from utter despair; and these very theories, formed, in fact, only for the exigencies of the moment, not unfrequently remained, for ages, as so many barriers in the pathway of human progress.

The spirit of true science, in the meantime, discovered that it was only *amongst a few of the simplest elements of human thought*, that it could find a sure and steady footing. This solid basis of certitude it attained, first of all, amongst the relations of number and space. Here, at least, the reason could find satisfaction, if not repose; here, at any rate, it could move with a sure step. In numerical calculations and geometric proofs it could, at length, proffer results, which were removed beyond the very possibility of scepticism.

This step once secured, it soon became evident, that, having gained certain definite conclusions in these abstract spheres of thought, a platform was laid, on which the reason could take its stand in order to penetrate into regions still beyond them. The results of geometry, after a time, assisted to bring unity into the vaster movements of the material universe, and gave the data on which science could gradually build a perfect system of terrestrial and celestial mechanics.

In like manner, again, has our knowledge of the properties of bodies paved the way for a positive science of chemistry; while this in its turn enables us in due time to enter into the more complicated regions of life and organization. Lastly, physiology, when once pursued with all the aids of chemical analysis, tracks its way slowly upwards through the vegetable and animal kingdoms, infusing law and order into the complicated phenomena which meet us on every step, until it at last touches in its highest efforts upon the region of *mind* itself.

Here a new set of facts appear, which have to be conquered, reduced, calculated, and expounded, just on the same principles of scientific research as all the rest which preceded it; so that, while every successive step in the evolution of the sciences is based upon a fresh and peculiar region of actual facts, the course of science itself, the laws of reason it follows, and the principles of investigation it has to employ, remain the very same throughout the whole series.

Now, so sure as this whole doctrine of the co-ordination of the sciences is true, may we certainly conclude, that if any fresh light is to be cast upon psychology at all, it must inevitably spring out of its connexion with the entire procedure of *natural science.* So far, indeed, as the general question of *method* is concerned, this has long been acknowledged by all the best writers of our own country. We owe it, perhaps, more especially to the eloquent advocacy of Dugald Stewart, that the principles of induction have in recent times been well-nigh universally granted to be as necessary in the science of mind as they are throughout that of nature.

This acknowledgment, however, although right and true, does not by any means express the entire state of the case. In Stewart's time the law of scientific progress from the more simple and abstract to the more complicated and concrete elements of human knowledge, was not clearly thought out. Accordingly, he regarded the whole material of mental philosophy as naturally isolated from that of physical science, and made them each to consist of a distinct series of phenomena, the one of which could have no possible community with the other. It was not *then* taken into account, that the laws of reason pervade the entire realms of existence, that an unbroken series of ascending phenomena is presented from the lower regions of organized forms, up to the very world of thought and feeling, and that, when natural science gives us the laws observable in one portion of the series, we may derive from them a clue, which enables us to carry our investigations with more clearness and certainty up into that higher expression of them which is seen on the sphere of the soul's operation.

Science, we must remember, is not a mere classification of facts. If it were so, then every separate department of facts would form an isolated study, and the laws of the one would throw no light upon, because they have no connexion with, the laws of the other. All science is based upon *universal principles of reason*. From number and geometry upwards, it only clears its way by penetrating the facts which it investigates with *rational laws;* neither is any sphere of truth finally conquered, till we can obtain such an expression of it, that the human intellect can interpret every phenomenon as the direct result of some general principle, which is as true in thought as it is operative in nature. This unity between thought and existence, then, is our guarantee that there is no real separation between the principles and the method by which we investigate nature, on the one side, and the human mind, on the other.

The present work, accordingly, proceeds upon the supposition that psychology is not a branch of *transcendental philosophy*, but a *positive science*,—a science, moreover, standing in due co-ordination with all the rest, and deriving its data, to a large extent, from them. The fact, however, that it is a science, and one which comes so far down in that scheme of development which the sciences generally are seen to follow, is sufficient to assure us, that we are not yet in a position to calculate all the elements which enter into it with complete accuracy, nor to raise it up to the dignity of being termed a perfect branch of human knowledge. Before this is accomplished we shall have to understand more completely the nature of *life* itself—to have a more perfect physiology—to penetrate all the hidden functions of the animal frame with the light of law and reason.

It is in the nature of all human research, however, that we should *struggle* with the problems of every science long before we are able fully to solve them. The glimpses which partial knowledge affords urge us onward in our course, and every fresh attempt, enlightened by new discoveries in the under-lying sciences, brings us just so much nearer to the perfection we aim at.

That the correct *idea* of psychology is propounded in the present work, I do not entertain any misgivings, but that this idea is very *imperfectly* realized, I know well to be but too certain. My object will, however, be fully answered, if I succeed in showing the point to which psychological research has now attained amongst the scientific thinkers of Europe, the main *results* it has already arrived at, and the method which it will have to follow in the future. The great benefit we derive from bringing it into the category of the positive sciences is, to give it at length an unquestionable place on the map of human knowledge; and to assure ourselves that, though it be to a large extent an *unexplored* country, yet it is a real, and not a fabulous land,—one to which we can steer our course by a chart that cannot in the end deceive us.

The plan on which I have proceeded may be pointed out in a few words. First of all, I have given a rapid sketch of the rise and progress of psychology, just sufficient to show the *course* which it has hitherto followed, and the end to which it is steadily tending. In the first chapter I have offered a few observations, which point out the connexion of mental science with the science of nature, and show the *analogies* we are warranted to carry over from the one into the other. The third chapter is purely *speculative* and *transcendental.* It attempts to realize the proper idea of the soul, to explain its origin, and look forward to its immortality. These questions, so far as they are treated philosophically, must, of course, rest upon rational grounds only, unaided by any facts of *actual experience.*

Having thus prepared the way, I have divided the whole positive investigation into three parts: 1st, That relating to the human *intelligence;* 2dly, That relating to the *feelings;* and 3dly, That relating to the *will.* In the present volume, I have simply analyzed the various ascending stages of the intellectual powers, and pointed out the methods by which we may verify the truth of our results. The analysis of the feelings and the will are reserved for a second part.

I am anxious, therefore, that my readers should not look upon the results arrived at in the present volume, as presenting a *complete picture* of the human mind. Viewed on the intellectual side only, I believe that the analysis will be found exhaustive; but the corresponding stages of the feelings, and especially the *will,* must be seen before our view of human nature is at all perfect. Freedom, indeed, as it is the most distinctive element of humanity, must be regarded as the crowning-point of the whole. It is that in which psychology terminates, and which gives the primary data for the whole subsequent department of *morals*.

I would, in fine, remind my readers, that these are, after all, but *elements* and *outlines* of psychology. They are, indeed, the result of some years of thought upon the topics discussed, but of a much shorter period of direct labour. I would fain have worked them out more fully, but that authorship is to me but a παρεργον, which has to be got in, as best it may, between the more regular and active employments of daily life.

BOWDON, NEAR MANCHESTER,
February, 1853.

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ERRATUM.

On p. 140, line 9, the word "altitude" should be "attitude."

INTRODUCTION.

Qui tractaverunt scientias, aut empirici aut dogmatici fuerunt. Empirici, formicæ modo, congerunt, tantum utuntur; rationales, aranearum more, telas ex se conficiunt. Apis vero ratio media est, quæ materiam ex floribus horti et agri elicit, sed tamen eam propriâ facultate vertit ac digerit.—Bacon.

I.—PSYCHOLOGY EXPLAINED.

Psychology *is the science which investigates the essential properties of the human mind.*

By the essential properties of the human mind, we mean all the facts and phenomena, which belong to the mind of man *as such;* and without which it could not be considered perfect or entire.

To gain a correct view of the field of research which psychology, as a science, properly covers, we must be careful to distinguish it from *Anthropology* on the one side, and from *Metaphysic* on the other.

Anthropology is the science of man, in all his natural

t.c.

variations. It deals with the mental peculiarities, which belong specifically to different races, ages, sexes, and temperaments, together with the results which follow immediately from them, in their application to human life. Under psychology, on the other hand, we include nothing but what is *common to all mankind*, and forms an *essential* part of human nature. The one, accordingly, may be termed the science of mental *variables*; the other, the science of mental *constants*.

To explain the distinction between psychology and metaphysic, we must regard them both in relation to the idea of *human knowledge*. Knowledge necessarily comprehends two things, the *knowing*, and the *known*. The former, in the language of philosophy, is termed the *subject*; the latter is termed the *object*. That these are the two primary conditions of human knowledge neither requires nor admits of a logical proof. Sufficient that we cannot conceive of it in any other way.

Now to each of these two factors (from which all knowledge, as we have said, takes its rise) philosophy may direct a special and separate attention. In other words, we may investigate either the mental states, which are experienced in the natural history of our consciousness; or the realities, *exterior to consciousness*, of which those states are a guarantee. In the first case, it will be seen, we deal only with the internal *form* of our knowledge, together with the *feelings* and *impulses* by which it is accompanied; while, in the latter, we deal as exclusively with the *matter* of it.

For example, we may have an immediate perception, or a popular notion, or a scientific idea of one and the same object, such as a comet or a star. In each case, the outward material presented to our mind's attention is the same; but still it is the peculiar mental state under which it is apprehended that determines the mode or *form* in which it enters, as an element, into human knowledge.

Now these two provinces of inquiry mark off the distinction between psychology and metaphysic. Psychology occupies itself simply with states, operations, and laws of mind; or, as it might be better expressed, with the *phenomena of consciousness.* Metaphysic, on the other hand, has to determine what reality there is in the region of *being*, standing parallel with these inward phenomena in the region of *thought;* and what kind of guarantee we have, that such reality actually exists, *as perceived*, independently either of ourselves, or of our peculiar modes of perceiving it. The one (to use the language of philosophy) contemplates the human mind in its *subjective*, the other in its *objective*, relations. In the present treatise we have to do only with the former.

II.—HISTORICAL SKETCH.

Before we proceed further, it may be useful to give a brief outline of the history of psychology, so far as it has assumed the form of a distinct science.

Philosophy existed long before psychology, as a special branch of inquiry, was thought of. The Greeks appear to have been the first people who succeeded in clearly separating the material of thought from the instrument, and who realized the possibility of studying the human mind, in its thoughts, feelings, and volitions, apart from the *objects* about which it is employed.

But even the Greeks could not rise to the conception of such a science all at once. The early speculations of Thales and his followers related almost exclusively to natural phenomena, and the possibility of finding for them an *αρχη*, or first principle.

The Pythagorean philosophy, however, soon made a step in advance. It laid hold of the abstract and formal elements in human knowledge, and separated the *νοῦς*, or reason, both from the sensuous intelligence (*φρῆν*) and the impulsive nature (*θυμος*).

The Eleatic school, diving yet deeper into abstractions, led, in its turn, to a renewed investigation of the distinction between the senses and the reason; and in the struggle which it originated between the Sensationalists and Idealists of the age, laid the foundation for much of the accurate psychological observation which afterwards followed.

It was, finally, reserved for Anaxagoras to bring the problem of psychology (as far, at least, as the intellectual powers go) into a more definite form; to affirm the existence of an intelligent soul, as an essence, distinct from nature, and standing in contrast with the material world; and to show that human knowledge could only exist in a trustworthy form by means of the due co-operation of the one with the other.

We see, accordingly, that speculation *began* with a few feeble guesses respecting the first principle of material things;—that this led to various questionings respecting the credibility and certainty of human knowledge, as based, on the one side, upon the senses, on the other side, upon the reason;—that this drew forth a farther investigation into the mental processes by which our knowledge is acquired or accompanied; and produced, lastly, a clear conception of the combined effect of the mind and the world—the instrument and the material—in bringing about the final result.

From the time of Socrates, psychology began to occupy a more prominent place in the field of Grecian speculation. In Plato, for example, the distinction between mind and matter, as also between the intelligible and material world, became deep and fundamental. Considerable progress was at the same time made by him towards a regular classification of the faculties, although it was not carried out into any of the finer details. .

It is to Aristotle, however, that we have to look for the most perfect and systematic treatise on the subject. The view he takes of the nature of the soul may be seen in some measure from the place, which he assigns to *psychology* in the circle of the sciences. Theoretic science separates itself (according to the Aristotelian system) into the three branches of mathematics, physics, and metaphysics; and the treatise "De Animâ" is classed under the *second*. This great master saw clearly, that we must draw a broad line of distinction between *thought itself* (of which logic is the *science*) and *the soul*, viewed as a concrete reality. He saw that the latter is really and truly a *production of nature*, coming originally in the same great chain of physical causes as all other natural phenomena. By him, in fact, everything which contains an organic life was regarded as, in some sense, possessing a soul. The plastic power, which vivifies and forms the plant, was the plant's soul; the plastic and sensitive principle, in the animal, was the soul of the animal; the entire vital, sensitive, and rational principle, in the man, was the human soul. Thus, he says, the soul is the *εντελεχεια* of the body; it is that which makes it *a unity*; which adapts it to, and uses it for, the purpose for which man was created; which constitutes, in a word, the very *idea* and *essence* of humanity.*

Aristotle stands pre-eminent amongst the ancients, not merely for his philosophic treatise on the nature of the soul, in itself, but equally so for his classification of the faculties. First and foremost he places the plastic and nutritive power (*θρεπτικη*); next the faculty of perception by the senses (*αισθητικη*), as that which unites us to the universe at large, and lays the primary groundwork of all human experience. The third generic faculty is that of locomotion (*κινητικη*); the fourth, desire (*ορεκτικη*); and the sixth, reason (*διανοητικη*). Under each of these he enters into a variety of psychological analyses, comprehending much more detailed observation than is to be found in any other writings of the same age. They comprehend, for example, discussions on the relation of mind to the external object in perception—on the primary development of self-consciousness—on the nature of imagination and memory—on the characteristics and functions of the impulses, volitions, and desires—and, lastly, on the different stages of the intellect or reason.* The very subjects here discussed clearly show us, how studiously Aristotle had already advanced along the path of experimental psychology.

---

* See "De Animâ," book ii.

From the time of Aristotle down to the rise of modern science, we have nothing in the department of psychology that is worth recording. The Alexandrine school, indeed, and, after that, the scholastic writers of the middle ages, made many vigorous attempts to penetrate into the hidden nature of the universe and of man; but they used, for the most part, both the methods and the materials of the ancient philosophers. It was the dawn of modern civilization which opened a new era for all the sciences, and not least so for the science of psychology.

The great distinction between ancient and modern science consists in the different use, which is made of *actual facts* in the process of research. The ancients observed facts as well as the moderns; but they attempted to pass *at once*, by the force of reason, from the individual facts to the complete theory. Thus their philosophy was a mixture of individual observations, and of universal theoretic ideas. The modern method of induction, on the other hand, employs facts primarily to establish generalizations *only one degree removed in the order of generality above the facts themselves.* From this it advances steadily to a still higher degree of generalization; and so on, progressively, till it can reach the great fundamental fact, or law, which includes all the rest.* It is this *progressiveness* in modern science which has given to it its real power, and enabled it to gain its present elevation; a progressiveness which is manifest in the psychological, as well as it is in every other department.

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* These topics comprehend the chief material of the 2d and 3d books of the treatise "De Animâ."

Bacon first uttered articulately the canons of the inductive method; but it was Descartes who first applied them to the study of the human mind. The field in which Bacon proposed to labour, was that of nature; the field in which Descartes applied the principles of the new analysis was that of the human consciousness.

The very word "consciousness" involves in it the whole difference between the ancient and modern psychology. In ancient times the consciousness had not become realized as a distinct field of observation at all, but the facts of mind were detected chiefly in their outward applications. When Descartes, however, set aside all previous philosophical attempts, when he resolved to take nothing for granted, when he made a "tabula rasa" of human knowledge, and inquired where we must look to find an infallible starting-point for a new and purely scientific system, he was compelled to constitute the interior consciousness of humanity a distinct and unquestionable field of human observation. Of all else, he saw, it was possible to entertain a sceptical doubt, but to doubt of the immediate facts of consciousness would involve us in immediate self-contradiction. To doubt is to *think*; to deny our thoughts would be the same thing as to deny our *doubts;* would be a scepticism, consequently, which rejects, and therefore *cures,* itself. This was a fruitful thought for psychology; it was that which rendered the age and name of Descartes the threshold of a new epoch in human speculation, and which placed in opposition those two elements of *thought* and *being,* of the real and the ideal, on which have turned, as upon their great pivot, well nigh all the modern revolutions of philosophic thinking.*

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* See Whewell's "Ind. Scien.," b. xi., c. 6. Comp. Mill's "Logic," book iii., chap. 3.

The field of psychology, however, was not yet clearly mapped out. The philosophical writers who followed the Cartesian era, were too deeply involved in abstract and metaphysical questions to cultivate psychology with much advantage, as an inductive science. Such was the case with Malebranche, Spinoza, and Leibnitz, on the continent; such with Cudworth, Locke, Berkeley, and others, in our own country. About the middle of the last century, however, the reputation of the inductive philosophy in natural science had reached so great a height, that it began to exert a marked influence upon the investigation of mental phenomena; and the science of mind, based upon facts, partly physiological, and partly internal, began to assume a position side by side with the sciences of nature.

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* Descartes, "Meditationes," 1st and 2d.

Wolf, who possesses the merit of having embodied the philosophic thinking of his age in an encyclopædic system, clearly records in that system the position of psychological investigation, as it then existed. He divides it into two branches, empirical psychology and rational psychology. The first branch was based purely upon observation; the facts observed being classified according to the laws of thought, as developed in the earlier disciplines of logic and ontology. The latter branch was an attempt to define what we can deduce respecting the nature of the human mind, *on rational grounds only*, and wholly apart from any facts of observation whatever.

As Rational Psychology has played some little part in the history of mental science, it may be proper here briefly to describe its nature, and trace its fortunes.

The name "Rational Psychology" was given to certain attempts which were made to investigate the interior nature of the soul,—to determine its form of existence, its condition, its origin, and its destiny, on a purely rational basis. It proceeded in a series of propositions somewhat as follows:—

Proposition 1. That which thinks within us, and which we call *self*, exists. This proposition flows from the principle of *causality*.

Proposition 2. That which thinks within us is a *substance* or *essence*; for that which can only be conceived of as a subject, not as a mode or attribute, is *substance*.

Proposition 3. The soul is *one* (proved from the unity of consciousness).

Proposition 4. The soul is simple, or uncompounded: for such is everything the action of which cannot be regarded as the effect of a combination of causes.

By a similar series of propositions it sought to deduce the identity, immateriality, freedom, and indestructibility of the soul, each deduction flowing logically from some more general idea in which it was thought to be included.*

This procedure is, in fact, simply an attempt to found a science of psychology upon certain abstract ideas. Having grasped the conception of mind, in some fundamental form, the rational psychologist endeavoured to deduce from that idea a series of other correlative ideas, which should in the end present a complete logical development of all that is essentially distinctive of the human soul in its most interior nature.

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* See Wolf's "Psychologia Rationalis;" compare also "Tissot, Anthropologie," 2d Part, chap. vii.

It was Kant who put an end to this procedure, and laid the whole science of rational psychology in the dust. His proof of the deceptive nature of all such barely subjective notions, and the evidence he presented that, apart from experience, they are entirely hollow and formal, serving only a regulative purpose to the human reason, completely destroyed the credit of all such attempts, and has rendered their future reintroduction into mental science well nigh impossible.*

While rational psychology became crushed under the weight of the Kantian philosophy, empirical or experimental psychology was making progress, in accordance with the whole spirit of the age, towards a fuller scientific development. Locke had prepared the way for this by his profound treatise on the nature and genesis of human ideas. He had shown—at least indirectly—how much was yet to be accomplished on the field of purely mental analysis, and how successfully the most complex phenomena of consciousness might be reduced to a few simple elements.

In England and France the question of experimental psychology, as it developed, became for the most part a question of classification. Taking all the phenomena of consciousness as facts of observation, the main problem was to discriminate their essential characteristics, and arrange them into a system accordingly. This attempt, on the one hand, tended towards the hypothesis that all mental phenomena are fundamentally the same, and spring from one great generic faculty. In the hands of other mental analysts, however, it favoured the theory of a combination of different faculties, having their separate and independent functions in the entire economy of the human mind.

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* This polemic is contained in the "Kritik der reinen Vernunft," Book II., chap. i.

The tendency of the period succeeding the time of Locke showed a decided leaning towards the former of these hypotheses. The splendid results of natural science supported the notion, that every branch of knowledge might now be moulded to the same purely inductive form, and that the science of mind, as well as matter, could thus be brought down to *palpable facts*, followed up by their logical deductions. Hartley, accordingly, introduced the notion of studying the mind in the structure of the nervous system, and framed the doctrine of association of ideas on the *analogy* of physical processes; while Priestly, with more courage, did not shrink from the last results of *materialism*, making *all* mental processes alike the direct result of a physical impulse or impression.

It is amongst the French philosophers, however, that we find the most extraordinary attempts at mental analysis in this direction, and the most ingenious methods of bringing all the phenomena of consciousness to one great and fundamental fact. Condillac, in a series of elegant analyses, reduced all the mental faculties, whether of the intellectual or emotive nature, to *sensations* variously modified, transformed, and then aided in their development by the use of signs.* Cabanis, carrying on the same investigation, brought his extensive stores of physiological knowledge to elucidate the action of the nervous system, and the influence of external and physical causes upon the variations of mental structure in the individual and in the race.† Destutt de Tracy combined all these researches together into an admirable philosophical order, and by stamping the whole system by the term "Idéologie," gave it a fixed place and a *name* amongst the most remarkable efforts of genius to decompose human thought, and reduce it to one original element.‡

The psychological principles we have just referred to were undoubtedly characterized by an extraordinary, almost, we might say, a sublime simplicity. It was a simplicity, however, purchased at too dear a rate. If man is, at the root, nothing more than an extremely perfected nervous system, then his entire nature must be allied only to the earth; his knowledge must be confined absolutely to the region of material things; his highest thoughts must be delusive; his religious faith a mockery; his hopes of futurity a dream; his final destiny nothing better than that of the insect or the worm. The scepticism, which these principles superinduced, in reference to the higher regions of the true, the beautiful, and the good, naturally led to a protest and a reaction.

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* "Essai sur l'Origine des Connaissances Humaines."

† "Rapport du Physique et du Moral de l'Homme."

‡ "Projèt d'Eléments d'Idéologie."

The Scottish School of Psychology began by holding up the protest of common sense against such excessive refinements of mental analysis as those to which we have just alluded. However logically you may prove that there is no soul, no moral law, no material universe, no Creator, &c., yet, said Reid, there are great primitive faiths in human nature, which are worth more than all your arguments, which can break down your keenest logic, and which can boldly challenge all the opposing results of mere speculative philosophy.

The inventory which Reid made of these our inalienable mental treasures formed the basis of his psychological classification. Under the intellectual powers we have these nine:—Sensation, memory, conception, the power of analysis and synthesis, judgment, reasoning, taste, moral perception, and consciousness. The active powers, in addition to these, are classified under mechanical principles, animal principles, and intellectual principles of action.

No one can certainly detect here any decided approach to a *scientific* psychology. Reid, in fact, hardly looked upon it as such himself. He says:—"I shall not attempt a complete enumeration of the powers of the human understanding. I shall only mention those which I propose to explain." His real object in the whole analysis was, in fact, to subserve a metaphysical rather than a psychological purpose.*

Mr. Stewart's classification, though better arranged and more scientifically worded, is not much more perfect as *a system* than Reid's. The great value of both these writers lay rather in their clearing a groundwork for psychology than in building a harmonious superstructure.

In Brown's Lectures we have a good deal more attempt at a purely mental analysis, but the classification itself can hardly be called superior to that of his successors. It is simply a mixture of the principles of the French Ideology with those of the Scottish "common sense" philosophy, and contains a considerable portion of the vices of either, with only a few of the excellences of both.

Not the least service, which the philosophy of Scotland has rendered, is that of having incited a band of French psychologists to commence an open warfare against Materialism and Ideology; and to lay the foundations of a broader system, which, under the title of French Eclecticism, has become one of the most vigorous and fruitful schools of philosophic thought and literature. M. Royer Collard was confessedly a disciple of Reid and Stewart; and Cousin was both a pupil and a protégé of M. Collard. Hence there is a close affinity, historically speaking, between the psychology of Scotland and the now reigning system in France.

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* See "Intellectual Powers," Essay I., chap. vii.

In the French Eclectic School psychology has attained a far more scientific *form* than in those which immediately preceded it. Following closely upon the example of Descartes, it has studied and developed psychological facts, not only for their own sake, but as affording the surest starting point for a whole encyclopædia of the philosophical sciences. Moreover, it has reduced the study of those facts to a more definite and logical procedure. It proposes, first, to obtain an exhaustive enumeration of their *actual* character, and having done so, to trace them up to their *primitive form*. By a series of acute and elegant analyses, it has established and illustrated the three fundamental modes of mental activity, termed respectively, Intellection, Sensitivity, and Will, and enriched the whole with a vast amount of historical research, accurate criticism, and practical observation.

Such, then, has been the progress of experimental psychology in modern Europe. Based upon the observation of facts, it has penetrated into all the recesses of the human spirit, watched the rise and the progress of the mind's development, decomposed the more complex processes of thought, analyzed the unnumbered forms of emotion and volition, and enriched us generally with a knowledge of human nature calculated to throw some light at least over many important branches both of theoretic knowledge and practical life.

And yet, for all this, there is an imperfection at the root which destroys its claim to be reckoned, in the highest sense of the term, a truly scientific discipline. Grant that we can observe and enumerate all these facts! What is the value of isolated facts, when we require a *scientific system?* And even if these facts are in some cases logically related to each other, and duly classified under different faculties, still we are as far as ever from satisfying the indispensable necessity of having a perfect *unity* at the foundation of our system.*

To conceive of mind under the idea of a multiplicity of powers and operations will always, in the long run, prove untenable. We know that it is one. The unity of consciousness is at once the deepest, surest fact of our nature, and the most rigid condition for a complete mental philosophy. The physiologist may point to the nerves, the phrenologist may apportion the cerebrum, and the empirical psychologist may enumerate his system of mental powers and operations, but still we say, Where is the starting point? What is the principle of unity which binds the whole together? What is the true idea of mind in relation to nature? Where can we plant our scientific gaze, so as to see all the facts of observation *as one vast whole*—having a beginning and an end, a method and a purpose, an essential idea, and a real destination which is each moment in process of accomplishment? Rational psychology attempted, indeed, to grasp this unity, but ran into barren abstractions. Empirical psychology has never been able to reach that unity at all, but stopped short at the *phenomena*, without explaining the fundamental principle.

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* It is but just to say, however, that M. Cousin has here and there given fruitful hints, which would go far to establish psychology upon a true basis, although he has not carried them out in any systematic form. The expression, "L'homme est tout entière dans chaque acte de la vie réele," and others of a similar nature, struck the right note, had they but been expanded into the harmony of a complete science. See "Ecole Ecossaise," p. 60, and "Introduction à la Morale," p. 47.

The consequence is, that since the most important facts of mind which depend on mere observation have become common and familiar, the interest formerly attached to the science has steadily declined. It is felt on all hands that our present English psychology is wholly unable to solve the problems of the age. Moral, social, religious questions, all have their subjective aspects, and all appeal to the light of *mental philosophy* to aid them in their development. Such light, however, it cannot yet give, or can give only in very imperfect measure. We await a further and a far deeper development of psychological science before it can become a real and valid propædeutic for all the related branches of philosophical inquiry.

III.—RISE OF A NEW METHOD.

Mental philosophy originally grew out of natural philosophy, and in every succeeding age the one has uniformly followed the track of the other. This is a fact by no means to be wondered at. The science of nature has always been the great pioneer to all the other sciences. It is *there* that the true spirit of philosophic investigation is fostered,—there that the most distinctive methods are elaborated,—there that the most definite results have hitherto been procured. So long as *natural* philosophy employed itself mainly with abstract ideas and plausible theories, *mental* philosophy did the same. When the former turned, on the contrary, to the work of observation and induction, the latter began to pursue a similar course.

A like effect has flowed from the *actual results* as well as the *methods* of natural science. Each new discovery which pours fresh light on the constitution of the universe, throws every other department of thought into new relations. Psychology, ethics, theology, alike feel to their very centre the mighty vibrations of every great truth, to which the human intellect, by the means of natural science, is constrained to bow. It is no matter of astonishment, therefore, that the science of mind should ever become more or less modified by the relation it assumes to that of nature.

Now, there are *three* fundamental relations, which these two sciences have at different periods assumed towards each other. First, they have in a few instances been *absolutely identified.* Mind has been regarded simply as the name we give to the functions of the brain and nerves. The action of these portions of our organized structure has on this principle to be watched and recorded in the same way as the action of the stomach or lungs, and then the facts which are brought out, together with their legitimate deductions, will constitute all that we can possibly know under the head of mental philosophy.

Secondly, These two sciences have, in some other instances, been completely *isolated* from each other. All true philosophy, it has been said, is based upon *facts.* The facts on which natural philosophy is built are all observed *externally* by the senses, whilst those on which mental philosophy is built are observed *inwardly* by the consciousness. The two spheres accordingly must lie wholly apart. We cannot observe one single fact of nature by consciousness, nor one single fact of mind by the senses. Hence, with exception of the bare *method* of procedure, the two sciences can have no communication whatever with each other.

The third relationship, which has been affirmed, between the two sciences, is based upon a deeper and more penetrating view of science itself;—a view which includes both regions of research under one higher and broader unity. The science of nature, according to this third principle, is not *merely* a science of facts. Facts indeed must be diligently observed and classified, but then they must be rationally *interpreted;* that is, the reason of man must bring all outward facts and laws, within its own sphere; must see their meaning, their purpose, their hidden analogies, their perfect unity in the whole scheme of existence. Viewed in this light, nature again becomes indissolubly linked with mind. The laws of reason are seen to pervade both alike, to bear the impress of the same creative mind, to be developed by virtue of the same great principles of universal existence, to conspire for the same ultimate purposes, and thus to form one harmonious universe.

Whatever general laws, therefore, we can detect in the one, will be applicable, more or less, to the other. In a word, we shall have in nature, as it were, an objective mirror, side by side with our inward consciousness; a mirror in which the march of reason, and the laws of mind, are seen with a dim indeed, but still with a sure reflection.

The first distinct exposition of these principles was given by Schelling in his "Natur-Philosophie," and followed up in his "Transcendental Idealism." He regarded the universe as existing in three different spheres, or stages—that of matter, of force, and of organization. To these answer, respectively, the mechanical, the dynamical, and the rational spheres of philosophic investigation. The same mind, intelligence, power, and purpose, runs alike through the whole; so that, from the lowest to the highest regions of existence, we find a steady development of life and being, in which the ideas of the Creator are ever more and more perfectly expressed.

Thus, in the philosophy of Schelling, the world of matter and the world of mind, were again brought close together; the highest link in the one was regarded as the lowest in the other; all regions of being were alike made instinct with the same laws of absolute reason, and the same inward impulse to realize their great purpose in the history and economy of the universe. His system, accordingly, formed two halves, the one of which showed the development of the real, the other the corresponding development of the ideal; each mutually answering to, and illustrating the other.

In the latter or ideal portion, he started with the principle, that *mind* or *self* is essentially speaking an *absolute activity*, which aims, in an infinite series of acts and efforts, at the realization of perfect freedom. These efforts he then traced with considerable tact and insight through the regions of *sensation*, of *intuition*, and of *reflexion*, to the free action of the *intellect*, as seen in the region of practical philosophy.*

In Schelling's system there was, doubtless, a vast deal that might be ranked far better under the head of poetry than philosophy; and yet a fruitful and much-forgotten idea, was there proclaimed and illustrated with all the richness of a mind at once deeply philosophic, and fraught with the choicest blossoms of a luxuriant fancy. Bringing mind closely into connexion with nature, and carrying the analogies of the one over to the investigation of the other, he threw out the first rough sketch of a psychology, which might assume a medium between the rational and the empirical point of view—attempting thus to combine the advantages of both, and to avoid the contradictions which each of those systems had before *tacitly* involved.*

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* The whole of the analysis is carried on by a series of dialectical *deductions* from one fundamental principle. It forms the main subject of the "System des transcendentalen Idealismus."

The first *systematic* attempt to produce an entire system of psychology, based upon that principle of *organic development*, which Schelling had partly indicated, was contained in a work by Christian Weiss, entitled, "Untersuchungen über das Wesen und Wirken der menschlichen Seele." (1811.) The author aims first at elucidating the essential nature of the soul, on the side both of reason and will; and regards all its activity as grounded on an instinctive effort to bring that nature to a full and free realization. He takes sensation as a primary fact, which brings into consciousness a multiplicity of isolated phenomena. These phenomena, however, the mind cannot accept *as isolated.* It wants to *understand* them; to *think* them; to see them all as parts of one great whole—one connected truth. The effort to accomplish this is owing to a rational instinct implanted in the soul's interior nature, which thus becomes, as it were, the unity or focus of sense and intelligence.

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* The term *Indentitätslehre*, was invented to designate this unity of the world of thought and existence.

In attempting to reconcile more completely these two elements of its own consciousness, the soul elevates itself from one stage of activity to another,—from sense to reason, and from reason to freedom. By so doing it becomes *mind, par excellence;* for mind or spirit implies not merely the existence of *a soul,* but of a soul, which has risen to the elevation of self-consciousness, of intelligence, and of free-agency.

The next writer after Weiss, who advanced the study of psychology in this direction, was Heinrich Steffens, a man of extraordinary versatility as well as uncommon compass of mind. In his "Anthropology," he shows, how the world of nature is *taken up* by the senses; how it is subjectified and idealized by the mind; how the man himself, standing as he does, in complete harmony with nature, and bringing over all which it contains objectively, into his own subjective experience, becomes a new point of development for the *thought,* which is embodied in the universe.

This thought appears first imprisoned in material forms; it comes, however, to fuller expression, through every succeeding sphere of animated being; until the *human* mind receives first as sensuous experience, and then as reflective idea, every thing which the universe itself contains implicitly both of truth and divinity. Such were the first and somewhat indistinct efforts, that were made, to introduce a new element into psychological research, to raise it as a science into a higher sphere of thought, and to give it an intelligible principle of unity.

We now come to the psychology of the Hegelian school. The great distinction of Hegel consists in the extraordinary acuteness and perspicuity, with which he developed the abstract forms of thought in a series of categories, the one of which followed by a dialectical necessity out of the other. The dialectic movement, by which these results were obtained, was based on the idea—that each determinate thought contains in itself *a contradiction*; that to overcome this contradiction, it assumes a new form, which involves the negative and opposite of the first; and then, thirdly, by combining the two opposites raises itself to a higher unity, and acquires by so doing a new intensity of meaning.*

So indelibly had this dialectical movement impressed itself upon the mind of Hegel, that not only the science of abstract thought, but all the other and concrete sciences as well, fell into a series of *triplets*, each of which represented one step in the process of scientific development. It is this procedure, which has assumed the name of the dialectical method—a method which, it is evident, takes for granted at the outset the fundamental identity of *thought* and *existence.*

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* See Hegel's "Werke" (1840), vol. vi., p. 161.

Thus philosophy, taken as a whole, fell naturally into three parts: First, the science of *thought in itself;* secondly, the science of thought objectified, and viewed in its negative pole, *i.e.*, the science of *nature;* and, thirdly, the union of these two movements, forming the science of *mind.* Each of these branches again was moulded in the hands of Hegel and his school into a symmetrical science by itself. So that the whole sum of human knowledge became gradually translated into the forms or categories of the Hegelian dialectics. Into the details of these sciences it is not our present purpose to enter. We only refer, at present, to the *philosophy of the soul.*

The sphere of the soul is the highest sphere of existence;—it forms the "indifference point," or unity of thought and nature; comprehending in a more perfect and developed form all which was implicitly contained in the two inferior stages of being. The soul, however, still carries on the same process of self-development as was seen in nature itself; and that according to the same absolute and eternal laws of thought and existence. Let us briefly note the rhythm of the movement.

According to the order of dialectical necessity, there must be three stages in the soul's history, of which the first and second are, as it were, opposites of each other; while the third gives us the higher unity in which they are both combined.

Now experience itself shows us, that the soul is, at first, closely allied to nature, that it passes through a series of *physical* changes, and develops a succession of progressive phenomena without any direct consciousness of its own operations. We find, for example, numerous peculiarities of race, and temperament; a variety of involuntary physical actions necessary to mere existence; and a number of *instincts*, connected with the processes of life, and the action of the nervous system, all exhibiting mind in unconscious operation, and presenting a whole sphere of phenomena, that characterize *the individual man*, as the child of a given planet, a given country, a given age, and as the possessor of a given physical constitution. Here, then, we have the soul in its lowest sphere,—forming *the individual*, and not rising above the peculiarities, which its physical circumstances or necessities impress upon it.

Soon, however, this state passes away, and the dawn of self-consciousness appears. The soul now passes into a precisely *opposite* condition. It becomes *ideally* separate from nature; places self and the world in direct contrast; and develops a series of acts, the object of which is to assert and maintain the sense of independence, and the conquest of mind over every opposing obstacle. Out of this conflict of self-consciousness, there springs gradually the sense of what may be

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termed *universal consciousness*,—the dawn of *mind*, in its truest and highest acceptation.

Mind has now become at once intelligent and free. But not wholly so. Still, a series of developments are necessary to complete the process. The various forms of *intelligence* must first appear;—intuition—understanding—reason. But these, too, on the same dialectic principle, must find their opposites; which accordingly appear in the successive stages of the human will, rising from mere impulse up to perfect free-agency. Lastly, in the complete blending of reason and will—the combination of the intellectual and the practical man, we find, at length, the highest form of human existence, and the loftiest play of the human faculties.

Such, in brief, are the various stages of psychological development, which Hegel and his school have drawn with infinite tact and the keenest logical ingenuity, out of the movement of the dialectical process.*

The validity of the Hegelian psychology as a whole depends, of course, on the prior validity of the Hegelian dialectics. To enter upon any rigid critique of either of them here, would be altogether beside our present purpose. We merely refer to the fact, that having maintained its ground by the efforts of numerous disciples of the highest philosophical ability for many years, the Hegelian philosophy is now gradually losing its hold on the scientific mind of Germany; and having made its *lasting* contribution to the progress of truth, is beginning to take its place amongst the histories of the past.*

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* The first crude notion of the above system appeared in Hegel's "Phänomenologie des Geistes." This work, however, he used to denominate his *Voyage of Discovery*, and always regarded it as wholly immature in relation to his subsequent philosophical principles. He left a mere outline sketch of a more perfect system behind him, (now published in the eighth vol. of his Works,) but did not live to elaborate the subject as he intended. Both Rosenkranz and Erdmann have published works on Psychology based upon this sketch, from the latter of which the above account is chiefly taken. A still more popular view is given in Erdmann's "Psychologische Briefe."

That there is something captivating in having the entire symmetrical *form* of every science marked out beforehand by the very necessities of human thought, every one may readily admit. But the universe will not so easily bend to our *à priori* conceptions. The symmetry of the method is soon counterbalanced either by a practical neglect and consequent ignorance, of facts, on the one hand, or by a stubborn *irreconcileableness* of them with our perfected theories, on the other.

In the case of the Hegelian psychology all these evils are more or less visible. The abstract categories, by which the various ascending stages of mental development are designated, remain abstract still. They show us, clearly enough, what the human mind, *according to*

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* One of the most acute critiques and refutations of the dialectical *method* is that of Trendelenburg. "Logische Untersuchungen," vol. i., chap. 2.

Hegel, ought to be; but they do not prove to us what that mind *really* is. The Hegelian scheme is, in truth, *very hard* to reconcile with the facts of consciousness. According to it, we ought to find the instincts, the feelings, the intellectual powers, the volitional phenomena, &c., all appearing in due order, and in a series of ascending developments. The facts of our mental history, on the contrary, show us intellectual powers, subjective feelings, and voluntary actions, all blended in one continuous consciousness from first to last.

The laws of *reason,* no doubt, are manifest in the whole of our mental history, but not so obviously the laws of the Hegelian dialectics. Once lay down an infallible *form,* from which the efforts of the human intellect can never depart; once assume that every subject, to be well understood, must be thrown into the cycles and epicycles of an eternally recurring series of logical categories, and we soon come under the yoke of an intellectual slavery, which is so much the worse for being self-imposed, and voluntarily borne.

Before we conclude this brief historical sketch, it is necessary just to mention, that there are at this moment in Germany, besides those already mentioned, various schools of Psychology, which present a very considerable variety, both as to their principles and their methodology.

No author of the present age has probably written so copiously on psychological subjects as Dr. E. Beneke, of Berlin. In addition to a succession of works, which range over a space of nearly thirty years, comprising no less than eight volumes on psychology itself, beside other treatises on Metaphysics, Morals, Logic, and Education, he has recently started a quarterly periodical, entirely written by his own hand.*

The system of Beneke is purely *empirical.* He not only denies innate ideas, but also ignores the existence of any original intellectual faculties; and undertakes to show not merely how our *notions* are formed, but the very process by which all the mental *faculties* are constructed out of the original elements of our nature.

The human mind (which he regards as having a reality distinct from the body), exists at first in a state raised only in the smallest degree above *bare receptivity.* It can receive impressions, and has an instinct to react responsively to them. This, then, is the starting-point.

Each impression we receive, he goes on to show, leaves a trace—a real physiological trace (Spur), behind it, which may be revived and brought again into consciousness, under the proper physical conditions. Day by day, then, while impressions are pouring in upon us, these traces accumulate; as they accumulate the mind becomes more capable of understanding them, and more conversant with the outward objects, from which they have been produced; until, at length, by the result of this process, the *power of perception*, both internal and external, becomes duly developed, and we term it a *mental faculty*.

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* Archiv für die *pragmatische* Psychologie.

Thus, then, the two original *factors* in our mental development, are outward impulses (Reize) on the one side, and the powers of inward reaction to each impulse (Urkräfte) on the other. Here we have the primary elements of our whole mental activity; and from this commencement, our author proposes to build up *empirically*, the entire structure of the human faculties.

Let us look, first, at the different *modes* of mental activity, termed respectively intelligence,—emotion,—will. These Beneke derives from the *variable relation* in which the primitive power stands to the outward impulse. If the impulse is *less intense* than the reaction, there will be a certain amount of inward effort over and above what was necessary to meet it. In this case the mental phenomenon will be what is termed a *volition*. If, on the contrary, the impulse is *greater* than the reaction, then the mind is apparently *receptive*, and we have the phenomenon of *feeling*. If, thirdly, the impulse and effort exactly counterbalance each other, the result will be a state of clearly-defined consciousness, termed a *perception*.

Beneke goes at great length and extreme minuteness into the laws, by which mental traces are *reproduced*, and *combined*. When a number of perceptions are attracted together by virtue of their *similarity*, and melt, as it were, into each other, they give rise first to notions, and then to abstract and general ideas. When combinations take place between *unlike* elements, they form either *groups* or *series* of mental images, as seen in the developments of productive imagination, and many other phenomena connected with the association of ideas, and our acquired beliefs in external objects.

The very same laws of combination, moreover, apply with like force to the active powers and to the emotions; so that by their means Beneke considers that it is possible to trace the growth of all the sentiments, and moral feelings, and to build up, in fact, the entire spiritual nature of the man.

Thus, in brief, by carrying out the laws of association far more minutely and extensively than even Hartley or Brown ever conceived of, by making them penetrate deeper into the inner nature of the soul, and apply more universally to all its efforts and feelings, as well as its ideas; he has constructed a system of empirical psychology, which has managed to explain with wonderful minuteness, though not always in the most natural or convincing manner, the multifarious phenomena of our inward consciousness.

Another much more energetic and more widely extended school of psychology, is that which was founded by Dr. J. F. Herbart, of Göttingen. While Beneke has attempted to explain all the phenomena of consciousness on the analogy of *physical* processes, Herbart employed for the same purpose the analogy of *mathematical and mechanical ideas.* He rejected as decidedly as Beneke himself, the notion of an original multiplicity of faculties; but he accounted for their rise and development on almost totally different principles.

We must begin, according to Herbart, by accepting the mind, together with its various notions, feelings, perceptions, representations, &c., as a *given fact*, on which we are to employ our philosophical analysis. Taking the light of mathematical ideas with us, we soon learn to regard these different *notions*, &c., as so many mental forces, which are struggling one against the other, for predominance and rule; and which, according as they become more or less prominent, and either overbear or repress each other, give rise to the various phenomena of *intellect*, *feeling*, or *will*.

Thus, Herbart regards the soul as *one* simple substance, all the phenomena of which are merely different modes of its own self-sustaining effort (Selbsterhaltung). So far as these phenomena are concerned, he goes strictly along the path of empirical observation; but having once got, in this way, the material of psychology, he introduces his own speculative method of elaborating our ideas according to the laws of statics and dynamics, of resolving their contradictions and explaining their combinations, until the whole is reduced to one connected and scientific system.

Herbart's followers have considerably extended his psychological views, and attempted in various ways to complete them. Amongst the most celebrated of these we must reckon Drobisch, Exner, and Waitz. The latter, especially, has done much service in recommending the principles of the school, by his "Lehrbuch der Psychologie als Naturwissenschaft." (Braunschweig, 1849). This work shows a more decided tendency, than did Herbart himself, to trace the phenomena of the human consciousness *upwards* in a series of ascending developments, from one central and immaterial point,—and attempts to clear up various questions which were left by the Master himself imperfectly thought out, or indistinctly defined.

Another and somewhat fruitful school of psychological writers, has also sprung from the extensive influence of Schelling's philosophy. We have already noticed the services of Steffens in this respect, and may now add those of Schubert,* Baader,† and Carus.‡ The fundamental idea running through all these writers is, the possibility of a union between the philosophy of nature and the philosophy of mind. They begin the study of mind by grasping the *ideal side of nature*, trace its gradual development up to the sphere of self-consciousness, and show how the same laws applied to the soul itself, are calculated to throw new light upon the whole process of its moral and intellectual development.§

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* "Geschichte der Seele." (1830.)

† Ueber die Begründung der Ethik durch die Physik.

‡ "Psyche, zur Entwickelungsgeschichte der Seele." (1851.)

§ I might have mentioned, amongst the other indications of

Taking, then, finally, a general view over the entire historical progress and present condition of psychology as a science, we draw from the whole the following practical conclusions :—

1. That the *tendency* of all speculations and researches down to the present time has been *to establish the entire unity of the soul as a real existence* ;—a doctrine which lies equally removed from the abstract view of the rational psychologists on the one hand, and from those who maintain an original multiplicity of independent faculties or impulses, on the other.

2. That, in pursuing the study of mind in its laws and operations, we must plant our footstep primarily upon *human experience.*

3. That experience *alone,* however, will not satisfy the conditions of a *true science* ; but that we must bring rational principles to bear upon the elucidation of the phenomena, which experience itself presents.

4. That to study mind aright, we must not sever it either from the science of nature, or the science of *thought,* objectively considered.

5. That by such a union we may combine the light which flows from empirical observation, on the one side, with that which comes from reflexion and speculation on the other.

an organic system of psychology, the labours of several eminent thinkers in Italy. Amongst these Signor Pole and Lingi Pierachini, have each constructed a scheme of the development of the faculties, which introduces amidst much extraneous matter, a distinctly *organic idea* into the treatment of their subject.

6. That psychology is not a primary and independent science, and cannot be taken as the starting-point of philosophy, universally considered; but that it holds its proper place in the logical co-ordination of the sciences at large, and will only be *perfected* when all the under-lying data shall have been duly explored and comprehended.

Having arrived at these points, as the general result of our historical sketch, we shall now leave the pathway of history altogether, and attempt to point out the basis of a psychological system, such as the present position of philosophical thinking appears both to warrant and to demand.

CHAPTER I.

OBSERVATIONS AND ANALOGIES RELATING TO THE METHOD OF PSYCHOLOGICAL RESEARCH.

Wer in der Natur die Natur und nicht den Geist, wer im Geiste nur diesen und nicht Gott, oder wer den Geist ausser und ohne die Natur, Gott ohne und ausser dem Geiste suchet, der wird weder Natur, noch Geist, noch Gott finden, wohl aber sie alle drei verlieren.—FR. V. BAADER.

PSYCHOLOGY, as we have before explained, is the science of mental phenomena, so far as they assume a constant and invariable character. It is a point which has been much disputed amongst metaphysicians how far it can be regarded as an *independent* science, having both *data*, and a *method* of its own.

Without entering beforehand into any abstruse discussion of this question, we shall offer a few preliminary observations, which may suffice to put it into an intelligible point of view.

To do this, we must distinguish carefully between the facts, which form the *subject-matter* of any philosophical investigation, and the *science* which arises out of them. The facts of the natural world, *e.g.*, are presented to us spontaneously by the senses; but their mere observation is far from constituting *a science of nature*. In like manner, the facts with which mental philosophy is concerned, are presented spontaneously to our *inward perception*,—but the *mere perception* of them is here also very far from constitnting a real mental science.

The phenomena of consciousness, it is true, are admitted to be the most certain and incontestable of all facts. They need no foreign aids to support them; neither is there any ground on which they can be doubted without implying a contradiction in terms. But this does not raise them at once to the dignity of possessing a philosophic character.

All the convictions which rest upon what is termed *common sense; i.e.*, upon consciousness, perception, and the primary beliefs of humanity, are *prior to reflective thinking*. They do not *form* a psychology, any more than they *need* one. Whilst, on the one hand, they stand with a certainty of their own above all philosophic research, they, on the other hand, fall equally below it, in so far as they neither possess a scientific basis nor are capable of a scientific application.

Science in general, although *based* upon the observation of phenomena, only comes into existence when the power of reflexion is sufficiently developed to make those phenomena the objects of analysis and rational investigation. It began, therefore, *formally speaking*, by analyzing the most simple facts which are presented to the human faculties; these it first reduced into clear and intelligible order; and then having thoroughly comprehended them, it made them the starting points for new analyses of a more complicated character. Thus, then, has scientific research ever followed a determined course; guided not by the relative *certainty* of the facts under consideration, but by the relative degree of simplicity or complexity which their materials involve.

The most abstract sciences are necessarily first in the order of thought, since they are those which contain the fewest elements, and the pre-conditions of all the rest. The science of number, for example, must precede that of quantity; and this again, must precede the science of space or dimension. In like manner the three sciences just mentioned, contain the conditions for that of mechanics; while the mechanical sciences must go before those of dynamics, and of organization.*

Now all the branches, above mentioned, enter into the complete idea of a *philosophy of nature;* and the philosophy of nature, as we have already seen, has always in history preceded the philosophy of *mind.* Psychology, then, although based upon primary facts, is by no means a *primary science;* it comes far down in the course of scientific development, and it must borrow, therefore, a vast number of formal data from prior sources. Were the philosophy of nature complete through all its parts, were it raised to so perfect a state, that we could trace the laws and calculate the actions of organized bodies, as *unerringly* as we do those of inorganic matter; it is in the highest degree probable that the only true method of psychology, would then lie before us as distinctly as that of the most perfect among the positive sciences.*

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* The doctrine of the co-ordination of the sciences was first brought into prominence by Aug. Comte, in his lectures on "Philosophie Positive." The English reader will find the question discussed, as it appears to me, on much sounder logical and metaphysical principles, in the "Theory of Human Progression," by Mr. Dove.

All human knowledge may be said to be in a state of progress; and there are various terms we employ to express the advancement which any particular branch has already made. Conviction of a wholly unscientific character we term *faith;*† objects which lie as yet in the twilight of scientific development we include, for the most part, under the term *philosophy;* while the term *science,* is reserved for those branches of knowledge, the principles of which have attained a positive and unquestionable certitude. Faith, accordingly, will always precede philosophy, as philosophy will always precede the fuller sunlight of science. In the meantime, the *methods* of philosophy, ere the dawn of the corresponding science arises, will be mostly taken by analogy from those branches of knowledge, which have already arrived nearer to their scientific perfection.

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* On the relation of natural science to psychology, consult "Lehrbuch der Psychologie als Naturwissenschaft," by Waitz. A book which, although written from the Herbartian point of view, contains a large amount of most valuable disquisition, upon almost every topic connected with the subject in hand.

† Daub defines *faith* to be "conviction arising from grounds *objectively insufficient,* but subjectively valid;" while *knowledge* is "conviction arising from grounds at once subjectively and objectively complete." See his admirable disquisition on *Glauben und Wissen,* in the "Prolegomena zur Dogmatik." Sec. 20 and 21.

The unfruitfulness of psychology in this age and country, has arisen mainly from its being separated from the whole sphere of *nature,* and having its efforts directed to the mere classification of the facts of consciousness. Cut off from other regions of thought and observation, it has also stood to a great extent isolated as to its effects; and the first requisite towards its reconstruction must be to bring it once more into the main current of scientific thinking, as developed in the present age.

Mind is not, in reality, independent of nature. It is rather the point towards which the entire of nature tends,—the richest and noblest blossom of all her marvellous efforts. There is no absolute gap between the unconscious and the self-conscious portions of the universe. Both are alike pervaded by the same great principles of reason, and the same purposes of beneficence.*

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* See Leibnitz "*Monodologie,*" Oersted's "Geist in der Natur," and Waitz's "Lehrbuch der Psychologie."

Hence, if we have been able in modern times to make large advances in the science of *nature;* if we have been able to discover any of her secrets, to detect the hidden laws of her development, it stands to reason that these will form at least *analogies,* by which we may proceed in studying the laws of the human mind, and *guide-posts,* by which our philosophic efforts are to be directed. Just as in all other branches of inquiry, analogy aids us to form hypotheses which give life and concentration to positive research; so also here will the light derived from the methods of nature impart a living reality, and a progressive power to the philosophy of the human mind.* To make such analogies, then, the more obvious, and show their bearing upon the method which we have now to pursue in relation to psychology, a brief series of observations will be necessary.

Observation I.—*The fundamental laws of reason alike pervade the mental and the material world.* We use the term reason here in its broad objective meaning,—as including not merely *self-conscious* intelligence, but every process which we can recognise as springing from a well-defined effort, to accomplish a given intelligible purpose.

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* "The problem of psychology," remarks Waitz, "consists in nothing else than in the exhibition of the necessary order of development, which our natural apprehension of the universe must assume. The most thorough scientific procedure, *presupposes* the conceptions which natural science has formed for all outward phenomena." "Lehrbuch der Psychologie," p. 12.

For example, there is a geometry in nature as surely as there is in the human mind. The structure and the movements of the solar system exhibit, on the one hand, the most perfect agreement with mathematical laws, while the human mind, on the other, is so constituted that it cannot help recognising these principles of geometry and number, as being absolutely and universally valid. What the one sees as *truth*, the other presents as *fact*; what the one knows *ideally*, the other embodies, and exhibits as a *reality*. The laws of reason are alike existent in both; they lie equally at the basis of our ideal conceptions, and of material realities. It is as much by their direction that the planets revolve in their courses, as it is that we assent to the simplest mathematical theorem.

The same is true respecting the laws of organization. There exist, in the human mind, certain indestructible perceptions of beauty, of symmetry, and of design in the natural adaptation of means to the accomplishment of an end. These perceptions lying, as they do, deep at the root of our rational being, are, in fact, simply the ideal counterparts of what *exists* in nature herself. Every thing that is most striking in art, we know, is copied, more or less, from the *forms* of nature; and all deviations from such forms prove, in the end, to be contrary to our highest æsthetic sensibility, and to the judgments of mankind at large.

The reason, immanent in nature, is, however, most

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distinctly seen, in the bodily organization of *rational beings*. Here we find the most perfect correspondence between the physical structure, on the one hand, and the indwelling self-conscious reason, on the other. The light is adapted to the eye—the eye is formed so as to concentrate the rays which reach it, into a distinct image of things around us; and the mind is formed, so as to receive the impression, to idealize it, and to transform the material fact, into a subjective truth. In all these processes, there must be the same principles of reason in co-operation;—in the light, in the eye, in the soul. It is true, these principles appear on different platforms of existence; here, operating consciously,—there, unconsciously: but their mutual adaptation is such as to assure us, that there must be an original correspondence between them and a fundamental unity at the basis of the whole.*

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* Similar views respecting the essential homogeneity of mind and nature were maintained by Leibnitz, in his "Monodology;" and afterwards illustrated in a series of Letters, published amongst his Opuscula. Modern science and philosophy, instead of refuting these speculations of perhaps the greatest of modern *thinkers*, has only availed more and more to prove their fundamental consistency with the principles both of thought and existence. Wherever research, either on the physical or mental side, has proceeded far enough to open the question *at all*, it has almost uniformly shown a manifest tendency either to recur to the point where Leibnitz left it two hundred years ago; or to restate the theory in a more perfect form. Amongst modern

There is thus a slumbering, unconscious *reason* in nature;—and the highest purpose of natural philosophy is to *detect* this reason, to compare it with the ideal reason within us, and to understand the *one* by the inward light of the other. Only when this is accomplished, only when we are competent from having one part of the series, *as a law of reason,* to predict what the completion of that series will be, can we be said to possess a perfect science.

OBSERVATION II.—*Science has discovered, that a law of progression actually pervades the whole universe.* The nature of this law needs to be accurately explained. We do not mean, that science has by any means set its seal upon any theory of *universal development.* Such a theory has never yet been warranted by positive facts, nor has it any stringent analogies in its favour. What we mean by the law of progression is this:—that the works of nature present themselves to us in unbroken series, from the phenomena of bare matter, up to the highest products of organization, and the vital forces.

The point, for instance, where mere unorganized matter, in its finest forms, ends, and the world of organization begins, is unknown, the one merging

writers we may mention Alex. Von Humboldt, Waitz, Carus, Oersted, Erdmann, Karl Schmidt, &c., as having given clear illustrations of the unity of idea which reigns through the worlds of mind and nature.

insensibly into the other. The vegetable kingdom again is insensibly linked on to the animal creation, insomuch that no one can say, where the life of the plant passes over to the lowest form of nervous irritation, and sensibility. Once within the sphere of animated nature, how plain and yet wonderful the steps which lead upwards to man! We find in the animal kingdom an ever-perfecting organization, developing a progressively higher degree of intelligence, until that intelligence at length reaches the lowest form of humanity.* From thence we start again upon a new progress, that of *human history*, the ultimate limit of which is unknown.

Neither is this all. Everything, within its own limits, is tending, by virtue of a secret unconscious design, towards an ideal, which may be perceived by the reason even where not realized fully in fact. This is seen, for example, in individual organizations. A flower shows the perpetual tendency to use all the advantages of its position to become the most perfect flower of its kind, on which fact indeed depends the whole value of artificial cultivation. The animal frame appropriates instinctively all the means, which lie in nature around it, to become the most perfect animal. Circumstances may be wanting to admit of this result being reached, but the unconscious instinct is never wanting to strive after it.

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* We assume these as acknowledged facts, flowing from the general results of physiology.

If from the individual we go to species and genera, there the same principle, the same hidden reason is operating. Every species has *an ideal,* which constitutes its essential character, and which exists only as a secret power to reproduce its type, in an infinite variety of concrete forms. No individual, or any number of individuals, can *constitute* a species; they are but so many *examples,* which serve to show to the reason, what the common type really is. The material exemplar is but a temporary manifestation,—the ideal itself is an abiding reality, one that existed before any individuals were produced, and that will outlive them all, as being a persistent law of nature, and consequently a *thought* flowing from its great Author. And just as the species manifests itself in the production of a number of illustrative examples, so also the genus shows itself by producing, in perfect numerical and morphic symmetry, a complete cycle of *specific* developments, all based on one common *archetype.**

These developments, again, have a further reference to the perfection and symmetry of nature as a whole. For in the same way as all the parts, in their several degrees of generalization, so also does nature *in her entireness* aim at an ideal perfection, which it requires an infinite number of steps and cycles to reach.

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* Thus Professor Owen has shown what the ideal type is from, which, by slight deviation, all the different forms of vertebrated animals, have been derived. (See his "Archetype and Homologies of the Vertebrate Skeleton." 1848.)

Thus all things—the individual—the species—the genus—the vast kingdoms of nature, and the entire of nature herself, show one undeviating passage upwards. There is a law of progression in each part, a law of progression in the whole; and the only way to penetrate into the real secrets of nature, is to see these laws, as laws of reason, at once *having* a purpose, and perpetually aiming at its fulfilment.

OBSERVATION III.—*The whole universe may be conveniently classified into four ascending stages of existence, in each of which the laws of reason appear on a different scale, and operate in a different form:—these are, the inorganic,—the merely organic,—the sensitive,—and the self-conscious.*

In the inorganic sphere, the operating forces are chiefly *mechanical*, which may be calculated according to the most rigid laws of mathematics. There are, however, besides these, the phenomena of electricity and magnetism, which stand, as it were, midway between the mechanical forces, and the vital power. All these, then, constitute the powers which govern the *universe as a whole*, without producing any individual being, in which their essential nature is embodied and represented.*

Where organic power begins we cannot fully decide; but once having begun, we can soon trace its effects.

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* See "Die Kräfte der unorganischen Natur." By. C. A. Werther. (Dessau, 1852.)

These effects are not only stamped with an intelligible purpose, but appear still further in the form of distinct existences, which are developed out of one primary germ, have a perfect unity in themselves, and exhibit, in a real exemplar, the ideal type after which they are formed.

Every ascending form of organic life, moreover, tends more and more to realize the one culminating purpose to which all the lower spheres of organization perpetually tend;—that, namely, of producing an *independent individual,* containing *in it* the power of self-regulation, and capable of reacting in opposition to the outward impulses of nature. This power of reaction, accordingly, marks the commencement of what we have termed the *sensitive* sphere of creation.

The brute is sensitive, but not self-conscious. Here, however, as everywhere else, we find an unbroken gradation;—that is, we find a vast number of ascending steps, running through the whole animal creation, from bare sensibility on the one side to self-consciousness on the other. First, the capacity of mere sensation becomes more and more acute; then the rudiments of other faculties begin to appear, such as memory—emotion—the power of adapting means to ends, and a number of animal impulses and affections. All these we put down loosely under the term *instinct;* but they evidently form a series of gradations, which, in their highest development, approach very near to the lowest type of humanity. They are stamped, too, with the same laws of universal reason, as those which appear in man, only upon a lower stage, and without the accompaniment of self-consciousness.

Is there any assignable reason, then, that once having got within the sphere of self-consciousness the law of progression should stop? Far from it. We know, in fact, that development does *not* stop at this point. Man, both individually and historically speaking, evolves in nearly uniform order the inward elements, on which the progress of civilization depends. He first leads a life, in which his power of mind reaches little further than that displayed by the more sagacious of the brutes, though always accompanied with the distinctive mark of self-consciousness. Starting from this, his perceptions become gradually quickened, his emotions more refined, his understanding and power of expression more definite, his sense of right and justice more determinate, till his reason becomes, at length, competent to reach the light of science, and his will the elevation of rational, moral, and social freedom.

Thus, to sum up the burden of this whole remark, we see, that each successive sphere in the universe of existence develops a new mode of life, which includes all that went before it, *with something more.* The organic sphere contains all the laws and phenomena of the inorganic; the sensitive world contains those both of the inorganic and organic; and the self-conscious those of the inorganic, organic, and sensitive, *with something of its own beside.* The principles of reason, objectively considered, run through the whole; and the great law of progression accompanies each step, from the smallest atom of senseless matter up to the most soaring spirit in the highest walks of human culture.

"Nature," says Humboldt, "is not a dead aggregation: she is, to the ardent investigator, the one holy, ever-creative power, which generates all things out of itself, and brings them forth into actual being." *

OBSERVATION IV.—*Since we have now found all the spheres of existence to be concentrated in man, as the true microcosm, we may trace out the law of progression as it manifests itself in the growth and development of the human individual.* The life of man, in its lowest stage, is simply *vegetative.* "Between the humblest plant and the embryonic human organism there is originally no perceptive difference: they may be said to have a common starting-point." † The vegetative life, however, as concerned in the processes of assimilation, nutrition, cell-formation, &c., merges insensibly into what is called *animal* life, where the rudiments of spontaneous action begin to appear in the form of movements, excited in the various tissues, of which the organism is composed. Next we find the different functions of the nervous system evolved one after the other, giving rise first to instinctive movements reflected from the spinal cord, and then to the still more important reflex actions, which originate in the sensory ganglia.

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* The *moral* importance of this view is thus strikingly put by Franz Von Baader:—" He who seeks in nature, nature only, and not reason; he who seeks in the latter reason only, and not God; or he who seeks reason out of or apart from God, or God out of or apart from reason, will find neither nature, reason, nor God; but will assuredly lose them all three."

† Carpenter's " Human Physiology," p. 355.

These phenomena, which are common to man, with many other of the animal creation, approximate continually nearer and nearer to self-consciousness, until the limit is at length crossed, and the germ of intelligence, *in the human form*, begins to appear. In passing from the automatic and instinctive actions, which are reflected from the sensory apparatus, to those more intelligent and voluntary ones, which physiology has located in the cerebrum, there is no sudden *intercepting* of the general law of progress. The whole of these several classes of phenomena are completely interwoven with one another. They all emanate from one centre—all proceed towards one end—all co-operate in the production of one great and final purpose. The law which they follow in each successive development must therefore be fundamentally the same; and if we possess a clear conception of one portion of the series, we ought to be able to trace it upwards to its highest expression in the perfected growth of the human mind. We may thus be enabled to see, in the intellectual phases of the infant, the child, the youth, the mature man, a *continuation* of the same great law, which pervades the universe at large, and which is constantly producing higher forms of *life*, connected with corresponding stages both of intelligence and activity.

OBSERVATION V.—*We are now prepared to understand, that the law of progression, as seen in the phenomena of nature, and concentrated in the life of man, should give us a clue to the formation of a scientific scheme of what are usually termed the human faculties.*

The whole tendency of our previous observations has been to show, that the development of the human mind must be brought more or less under the universal laws of organic growth. The mind, *we know by experience*, depends for the manifestation of all its activities upon a material organism, which grows up, like all others, from a central germ. Consciousness, moreover, reveals to us the fact that our mental phenomena keep pace, in every stage of their growth, with the material counterpart; the one becoming more mature as the other becomes more perfect. Hence, if the mind partake truly of an organic character, though in a higher region, the laws which apply to the progress of organic life *generally*, ought, *mutatis mutandis*, to hold good within its own subjective sphere, and the functions of the one ought to throw light upon the several stages of the other. This, then, will give us some *direction*, as to the mode in which our observations of mental phenomena ought to be conducted.

In forming a true idea of any living object, it is not sufficient to analyze it into its component parts. We can form no conception of its true nature, without taking into account its growth, without viewing its successive developments in relation to each other, without regarding it, in short, as the centre of a history, the issue and aim of which we must watch, as well as each of its separate stages. What idea should we form of the flower, if we saw it only in the leaf, or only in the blossom, or only in the fruit? To understand it aright, we must take the whole in succession, "first the blade, then the ear, then the full corn in the ear." Were organized objects a mere conglomeration of elements, then, indeed, a bare analysis might explain them. Such objects, however, do not exist by mere agglutination of particles *ab extra;* they come by a growth, which springs from one central point, and then retains its perfect unity of idea and purpose through every succeeding phase of its existence.

Applying this analogy, then, to the human mind, we are led insensibly and yet inevitably to view it, not as a mere combination of powers and faculties, but as one undivided power—a *spiritual organism*, if we may so term it—which throws out its energy in many directions, evolves a vast variety of different activities, and passes through a whole series of ascending stages, without even losing for a moment the unity either of its nature or of its highest purpose. To have a psychology that leaves life, growth, organic unity, and progressive development out of account, would be the same as to have a physiology based upon the mere anatomy of the frame, the whole phenomena of life being disregarded or disowned. "A scientific psychology," says Waitz, in the prospectus to his *Lehrbuch*, "should exhibit the laws according to which the life of the human mind is evolved; *i.e.*, it should point out the common basis upon which *all mental life* rests, follow the threads by means of which all its phenomena are connected with each other, show the germs out of which they spring, and how they unfold themselves into that multiplicity and richness of *inner* life which are manifested in the mature man."

Analogy, however, will lead us yet a step further in the determination of our method. The clue to the right comprehension of every thing enstamped with organic life, is—to grasp the end or purpose at which it aims, and to view all its successive phenomena as contributing to this issue. What, then, is the *ideal* of the human mind? What is the point to which it tends, and in the light of which we must view all the succession of its inward operations? Here the law of progression again comes to our aid; the one part of the series giving us a clue to the comprehension of the other.

In each advancing stage (as we have already seen) nature embodies her ideas in productions, which approach *nearer and nearer* to self-consciousness, and to an independent voluntary activity. Upon the stage of humanity these tendencies become at length duly realized, though, at first, far from perfected. If we follow, therefore, the same law in its further progress, we shall see that the goal of all human progression is to complete and bring to their full consummation the very ends to which nature *entire* appears always and steadily approaching.

According to this view, the ideal aim of man's nature must be, to elevate himself above all inferior determining influences *ab extra;* to gain complete freedom of action; to present in himself the most perfectly self-conscious, and the most perfectly independent manifestation of intelligence and will, in their highest and purest sense. It is only in rising to this elevation that he can lay the topstone upon the vast edifice, which the whole effort of nature is endeavouring, in all its progressive developments, finally to construct.

Very much is necessary to contribute to this end. No man, for example, can be *free* without knowledge; for freedom itself, deprived of the light of reason, were but a blind impulse. No man, again, can be truly free, or rational either, without *right affections;* for, with *base* affections, he is a slave to the lower purposes of existence, instead of a living manifestation of its highest ideal.

If, then, we have designated accurately the true ideal of the human mind, *we hold the two ends of the whole chain of phenomena, between which all the development of its powers must necessarily lie.* Man is, at first, a mere creature of sensation and instinct; from that he rises to the power of perception, separating the world from himself, and becoming conscious, *here* of his own identity, *there* of the universe around him. After this, he attains to the power of representation and expression, stamps upon objects their distinctive names, classifies and generalizes them, and penetrates them with the light of the *understanding*. After this process of *analysis*, begins the still higher process of *synthesis*. The objects, separated and classified, are now reconstructed in scientific order, and the truths which were first seen only by the light of sense and intuition, are now comprehended by the clearer light of *reason*. With the development of the reason are given the conditions for the development of the *will*, which rises through like gradations, from mere instinct to conscious self-action, and, at last, to the height of *perfect freedom. Such, in brief, is the clue which nature gives us to a correct classification of the powers of the human mind.*

OBSERVATION VI.—*We are now in a condition to follow out this clue, and present a general scheme of the faculties, viewed as the successive developments of the one undivided mind, seeking and attaining its ideal perfection.*

To arrive at this result we must be governed mainly by the observation of *facts*, although that observation must be directed by the analogies already pointed out. First of all, then, let us appropriate the fruits of *empirical psychology* so far as they go.

It is by an almost universal consent, that the entire phenomena of the human mind are classified under those of the intellect, the emotions, and the will. The *grounds* of this classification, indeed, have been various. Sometimes they have been regarded as three distinct spheres, sometimes they have all been made to spring out of one common fundamental root, and in some cases, again, there have been two fundamental faculties assigned, the one including all the intellectual phenomena, the other those of the feelings and the will. Reid, for example, accepts the twofold classification of *intellectual* and *active* powers; but he is uncertain where to locate the phenomena of our moral feelings for want of the third category. Brown divides all mental states into *external* and *internal*, which turn out in the end to be nothing more or less than sensations, intellectual powers, and emotions. Cousin and the French Eclectic School hold the same virtual classification, under the terms sensitivity, intelligence, and will. So we might go through a number of similar classifications in modern psychology, all of which come at last to this practical conclusion, *that man is sometimes in a predominant state of intelligence, sometimes in a predominant state of feeling, and some-*

times in a predominant state of action and determination.

To call these, however, *separate faculties* is altogether beside the mark. No act of intelligence can be performed without the will, no act of determination without the intellect, and no act either of the one or the other without some amount of feeling being mingled in the process. Thus, whilst they each have their own distinctive characteristics, yet there is a perfect unity at the root.

So much, indeed, is this the case, that the three always answer and correspond to each other. For every stage of *intellectual* development there is a corresponding stage of emotion and will; and the human elements which enter into a given elevation of thought, must enter equally into the same elevation both of our *voluntary* and emotional nature.

"Just as in the elementary stages," says Dr. Braubach, "thought, feeling, and will are seen concentrated in the act of intuition, and as the human mind is here *one* both in thinking, feeling, and willing, so also is it in the *higher* regions of human activity. We speak there of reason, conscience, and freedom, but it is not difficult to see that the word reason here denotes the intellectual side, conscience the emotive side, and freedom the voluntary side of the same act. We cannot conceive of conscience without attributing to it both thought and will, for without thought conscience were mere stupidity, and without free-will, a delusion."*

With these remarks premised, we can now sum up our method of procedure in few words.

1. The human mind, one and indivisible at its root, manifests from its earliest dawn the three modes of operation, termed respectively *intelligence*, *emotion*, and *will*, all of which are interwoven, in a greater or less degree, through the whole course of its experience and its history.

2. According to the analogies of nature, mind, like every other product in the vast chain of nature's operations, will ever strive towards an *ideal perfection* —a perfection which must involve in the end the highest development of all these modes of its activity consentaneously with each other.

3. Of the intellect, the highest attainment is *reason* in its most explicit and philosophic form — reason which penetrates into the *principles* of truth, and grasps the whole sum of knowledge in its entireness

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* See Braubach's "Psychologie des Gefühls" (1847), particularly the whole chapter on the unity of thought, feeling, and will.—pp. 1 to 39. Most of the eminent psychologists of Germany, whether of the empirical, mechanical, or dialectical school, agree fundamentally in the truth of this division as being the result of actual observation, but they are equally strong in asserting their primitive unity. So Fichte, junior; Reinhold, Beneke, Waitz, Karl Schmidt, in his "Anthropologische Briefe;" and others.

and its unity. Of the feelings, the highest attainment is *love*—love to every thing good and great—love to all that draws us towards the highest and purest state of mental existence. Of the voluntary powers, the highest attainment is *freedom*—a freedom that is antagonistic to all lower and material influences, and which is bounded only by the co-ordinate promptings of perfect reason and perfect love. *This, in brief, is the human ideal, towards which every ascending stage in the universe invariably points, which is impressed upon the very structure of our own material and spiritual nature, and after which the essential elements in that nature incessantly aspire.*

To get a scheme of the human faculties, therefore, viewed in the light of so many different *stages of development*, we must first place these three forms of mental activity clearly before us. We must next note, by observation, their lowest and most undeveloped states; and then from these, their earliest commencements, we must trace them each upwards in parallel lines, guided by the law of progression, to their final completion.

The lower states, according to this law, will be those in which the mind is most *dependent*—most allied to the inferior forms of nature—most determined, by sense, by instinct, by mere animal feeling. At every fresh stage we must watch the process by which the *human individuality* becomes more determinate; noting in what way the whole man attains more reason, more love, more freedom; how, in brief, he becomes, more strictly speaking, *mind*, partaking more fully in the development of his own nature, and approaching nearer the ideal which that very nature sets before him.

The steps which science marks out in this course of development must be, of course, more or less *artificial*; since in nature there are no such distinct provinces to be found. But still, in tracing the history of the mind *upwards*, there are resting-places, where we may stand and watch the progress we have made. To these, then, we give certain names, which will serve to designate the most important points in the whole process; just as we may speak of the leaf, the flower, and the fruit of the plant, although it is by imperceptible changes that they merge the one into the other.* The outline of the scheme will then appear as follows:—

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* So J. H. Fichte. "The scientific procedure of psychology can only consist in presenting the intelligence, the feelings, and the will, separately for themselves; but as each passes through similar *steps* of development, and gains upon each a corresponding expression, we must represent them in a threefold parallel row. As the soul in its primitive state of consciousness is the unity of sensation, feeling, and impulse, so also does the fully-developed mind carry with it the same parallelism. The highest stage of intelligence is *absolute thought*, the referring of all the conditioned to the unconditioned. But this idea is originally immanent in the consciousness, for it is contained already in the very nature of the feelings. The soul from the first knows itself as a *finite being*, given up and related to the

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	I. INTELLIGENCE.	II. FEELING.	III. WILL.
1st Stage.	Sensation.	Pleasure and pain.	Practical instinct.
2d Stage.	Intuition.	Sentiments.	Passions.
3d Stage.	Representation.	Affections.	Art.
4th Stage.	Thought.	Love.	Freedom.

The development of this plan into all its details, together with the verification derived from facts, science, and history, will form the main purpose of the succeeding analysis.

infinite. This highest element of thought, then, exists as the highest form of feeling. It exists, however, at the same time in the *will,* inasmuch as this, regarded as moral consciousness, aims no longer at the *particular,* but only at the *universal.* Here every progressive step contains *the like,* because its content—namely, the essential idea immanent to the consciousness—is *the same.* Nevertheless, every succeeding mental state is altogether *peculiar,* and can manifest itself independently in relation to the others. It is, therefore, a *parallelism,* not an *identity.*"—*Zeitschrift für Philosophie,* vol. xii., Part i.

CHAPTER II.

ON THE GENESIS OF MIND, AND ITS CONNEXION WITH THE BODY.

"Was man wahrhaft *verstehen* will, von dessen *Entstehen*, muss man einen deutlichen Begriff haben."—GOETHE.

Now that we have pointed out the analogies which the philosophy of mind bears to that of nature, and gained some clue to the method in which it should be pursued, we might at once address ourselves to the facts of the case, and try the validity of that method by its practical application. Such facts, however, can only be present on the supposition of mind being already in existence—mind, too, acting in connexion with a bodily organization. A prior question, therefore, naturally suggests itself: namely, how is mind (the object of our research) itself produced? Whence did it proceed? How did it become connected with this material frame? and of what nature is the connexion subsisting between them?

Now these are questions, the solution of which cannot wholly lie within the region of observable facts, whether those of sensation or those of consciousness. The origin of *all things* is, in truth, transcendental; *i.e.*, it belongs to a province which cannot be penetrated by human experience, but is accessible only to the power of human *thought*. It is not peculiar to the science of mind, that its deepest problems lie *here*. Whatever be the subject of human inquiry, there is always a boundary line where positive facts fail us, and across which we can only pass by reasoning, analogy, or reflection. The origin of a plant or an insect lies as much in a transcendental region, as that of the soul itself.

If, perchance, it be asked, why, then, should we attempt to enter into *such* a sphere of inquiry at all, we can plead only the wants and promptings of the human reason. Reason is not satisfied with half a truth; it is not willing to bound itself wholly by actual experience; nay, by following truth along a *series*, many of whose links it can trace, and the principle of which it can comprehend, it feels justified often in *completing* the series, even where experience can no longer accompany us on the path. Should the light, that sheds itself upon this research, prove dim at the best, yet we shall have the satisfaction of tracing the soul's history from the first point, where its existence *can* be actually observed; and get, perhaps, nearer to the line that separates the transcendental region, from that of positive facts, by the very attempt we have made to cross it.

The following remarks, though not based entirely upon actual experience, may yet, we imagine, claim some amount of speculative interest:—

OBSERVATION I.—*The production of a human organization in accordance with a physical law, cannot be conceived of, except as resulting from a previous type, that is, from a* THOUGHT *or plan in the creative mind, which was designed to realize itself in a material form.*

Let us consider, for a moment, how the case stands, as far as facts and analogies can illustrate it. The human organism is not produced *complete* at the fiat of almighty power, and a living soul then *added* to it. The physical *individual*, when first capable of being actually recognised, as a material fact, exists simply in the form of a minute globule or cell, which it requires the power of the microscope accurately to discern.

This primitive cell-germ contains a power of self-development, which commences either by what is termed in physiology its "duplicate sub-division," or by the addition of new cells within its own circumference, until it forms the first rudiments of that organic tissue, out of which the whole human frame is at length constructed.* Soon after this, the primitive outlines of the human frame itself begin to appear; first the stomach, then the spinal marrow, then the heart and lungs, and lastly, all the limbs and the organs of the perfect body.

Throughout this whole process, there is one distinct and intelligible purpose kept in view: viz., the production of a human organism, that shall be fitted for a human destiny. To say that this takes place by chance is meaningless and absurd: to say that *nature* produces it, is saying nothing, unless you admit that there is mind, purpose, reason, and design *in nature*, for such is indelibly impressed upon her work. But to say that there is mind and reason existing *in nature*, must mean that a thought, or purpose of the infinite mind is localized there; that it has embodied itself in a *law of development*, and that the result of this law is a realization of the thought itself, in a physical form.

Thus, then, we cannot imagine the very possibility of the *real* in a man, without the pre-existence of the *ideal*. We admit, indeed, that the ideal is not, at this early age, accompanied with *self-consciousness*; still it must be as really and actively present, as if it were so. For how could the tissue be constructed, the human brain formed, the entire organism fitted for a life of intelligent activity, and that, too, by an abiding law ceaselessly operating, unless the power which has added atom to atom, cell to cell, and organ to organ contained, *in some way* impressed upon it, the whole type and ideal of humanity.

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* For the process of cell-formation, see "Carpenter's Physiology," chap. iii.

OBSERVATION II.—*If a given ideal, answering to the human individual, existed antecedently, then the creation of the* REAL *man, organically considered, can be no other than the position of this ideal, by virtue of a Divine law, under the conditions of time and space.* We could imagine, indeed, an infinite creative power, giving existence to a human frame, and then adding a corresponding intelligent soul. But this is no explanation of the actual case before us. The body is an *organic growth;* it is carried forward, step by step, by the hidden and *immanent* * power of some intelligent principle; the real and the ideal are inseparably *there* from the first cell, up to the integral man. We must regard the primitive germ, therefore, as containing, *potentially*, the complete individual, both body and soul.

The cell, we know, contains the *body*, potentially, for it contains that power of self-development, which, by degrees, builds up the entire frame. But, in like manner, must that primary germ, we conceive, comprehend, potentially, the *soul*, and all which it can ever become; for it comprehends the very principle of life and intelligence, which emerges step by step, into conscious existence, and then comes within the law of human progress.

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* The term *immanent* is used to denote a principle of action, or intelligence, that exists within and not apart from the sphere of its operation.

Now put these two thoughts together: first, that there must be an ideal antecedent to the *realization* of each individual in time and space; secondly, that the first cell-germ of the human organism must contain this ideal *potentially* (as proved by the law of intelligence, by which it develops from the first moment of its existence); and what follows from them? This natural conclusion: that the ideal has become deposited in that primary organic point; that it has precisely *here* become subjected, through the guidance of a Divine law, to the conditions of time and space; and that from the moment the first germ comes into being, the entire *individual* is there, commencing a history in the world of reality, the issue of which none can as yet predict.*

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* On these speculations, see Carus' "Physis," p. 17. The following sketch is given by Maximilian Jacobi, of Carus's doctrine, which, from its succinctness, may be acceptable to the English reader. 1. "Carus," he remarks, "has nothing to object to in the view, that the soul is an *elevated vital power, manifesting itself in its highest activity*, so long as we attach the proper meaning to these words.

"2. The Divine idea, which realizes itself there as *soul*, appears in connexion with a certain physical apparatus, just as necessarily as the *idea* of certain crystalline forms appears on the snow-flake, when the drops of rain are submitted to a low temperature.

"3. The greater or less energetic soul of any organization is

OBSERVATION III.—From the foregoing considerations, we may comprehend somewhat of the nature of the soul, and its connexion with the body. On this question there have long prevailed two opposite theories; the one asserting that there is only a single, and that a material element in man, of which what we term *mind* is the *function* (Materialism); the other asserting that the soul is a real essence physically separate, and separable from the body (Dualism). The former manifestly loses the unity of the whole man in the multiplicity of material organs and operations; the

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determined, mainly, by the nature of the nervous system. By means of this, a centralization in the life of the man takes place, on which the possibility of *consciousness* rests.

"4. The whole man only enjoys *existence* through the inseparable union of *idea* and *substance*. Everything within him proceeds, on the one hand, from the idea—the type of all being previous to actual existence, the Divine thought; and on the other side, from substance, or *ether*.

"5. The nervous system is alone *allied* to the soul: it is the purest *form* of the indwelling Divine reality. By *action* upon the nervous system, and its *reaction*, are produced the phenomena which *represent* the idea of the individual, first feeling, then sympathy, then self-consciousness, then graduated knowledge, and spiritual life, comprehending both a world-consciousness and a self-consciousness.

"6. The *idea* which succeeds in fulfilling the organic conditions, by which it comes to a *world-consciousness*, is called *soul;* that which comes to self-consciousness is termed *mind.* Soul is the developed *idea;* mind, the developed *soul.*"—See Jacobi's "Naturleben und Geistesleben," p. 231. (Leipzig, 1851.)

other conserves the unity of mind, but grasps it only as a verbal *abstraction*. The organic view of the question, which we have just taken, will enable us to comprehend the perfect unity of the whole man, as being itself *constituted* by the inseparable connexion of the real and the ideal in his nature.

To show this, it can hardly be necessary to remark, at the outset, that the unity of consciousness cannot be philosophically accounted for, on the purely material principle. What, in truth, is the body taken alone? Simply a corpse. There is no unity in its constitution. It is a compound, or accretion of particles, which, left to themselves, dissolve with the utmost rapidity. Without life, moreover, there is no unity in its *design* and *purpose*. One part does not work with another; it has no mechanical adaptation to any given end,—no use to subserve in the creation around it. Add the principle of life and intelligence, and the whole becomes *one*—one in its conception, one in its purpose, and one in its entire nature.

But what objection, it might be said, can be urged to the view, that the soul is a spiritual *substance*, distinct from the body, and superadded to it? The objection is this,—that every conception we can possibly form of such an entity is purely *negative*. Of spirit, *substantively considered*, and apart from a material organization, we have no experience, and, consequently, no positive idea. The only method in which it can be defined as a substance is—by taking the realities of which we *have* experience, and abstracting one property after another, until we have an entity, *without* extension, *without* resistance, *without* parts, *without* divisibility, &c., &c.

After such a process of abstraction, that which remains is a mere *negation*,—a remnant to which we can reasonably assign none of the concrete properties of life and activity.

Beside this, there is a contradiction between the very idea of such a unity as the Dualist *imagines* to constitute the essence of the soul, and the vast multiplicity of the phenomena to which it gives rise. Do what we will, we cannot resolve, by any intelligible method, the *absolute incorporeal unity* he starts from, into the variety of incongruous and often self-contradictory actions which experience reveals, nor carry back that multiplicity, if we commence there, to one absolute unity. The whole system of dualism in the ordinary sense is thus fraught either with barren negations, on the one hand, or palpable contradictions, on the other.

Looking away, then, from these abstractions, all the facts of the case tend to show us, that the soul and the body are *perfectly coincident*, and that no single organic action takes place in the one without the other. The reason why this has not been more clearly perceived, is chiefly owing to the pertinacity, with which the human soul has been confounded with the human *consciousness*. ✓ The soul, as we have shown, is *prior* to consciousness.

It exists *unconsciously* from the formation of the first cell-germ; it operates *unconsciously* throughout all the early processes of life; it acts *unconsciously* even in the greater part of the efforts which subserve our intellectual development.

All the most complete researches into the nervous system confirm this view of the case. Nervous force and mental force are perpetually interchanged and interchangeable. Sensations, ideas, feelings, affections, passions,—all play backwards and forwards between soul and body with the most perfect interpenetration. The soul is in the whole body, in every part, in every nerve; it forms the peculiar essence of humanity, and *with the body it constitutes the reality and the unity of the individual man.*[*] We become most sensible of this if we attempt to draw a line *anywhere* between vital and psychical forces, and find how impossible it is to succeed in doing so. Even in the early unconscious developments of *life,* there is an intelligible purpose manifested which denotes the presence of a rational principle, although that principle only manifests itself as yet in teleological forms and processes. *Instinct,* again, plainly betokens mind, only on a lower sphere; for all the actions which it prompts, are as distinctly impressed with the laws of reason as those which rise above it. Neither is it possible, if we go one step further, to separate the phenomena of *sensation* from those of the physical and vital forces. The conscious and the unconscious sides of the process are so blended together, that it is only by a mental fiction that we distinguish them, and assign a cause to the one different from that which produces the other. If we go upwards from sensation towards the more intellectual regions, each step involves a corresponding action of the nervous system, which gives occasion to the allied mental phenomenon, as certainly as any other organ of the frame is associated with its appropriate function. And even if we ascend to the autocratic power of the will, still that is only reached by a succession of steps, all involving both thought and feeling, between no two of which we can draw any line of demarcation, so as to say where the vital and automatic processes *end*, and where those of the soul, *par excellence*, begin. The whole, in fact, are so interwoven in producing the result, that they point us of necessity to a primitive unity, as the real starting-point of them all.*

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[*] Of physiological writers, *Unzer* has exhibited this unity in the most striking way, and by the vastest array of actual facts. See his "Erste Gründe einer Physiologie."

We are far from concluding from this, that the mind is merely the function of material atoms, and has not any distinctive existence of its own. Instead of bringing the soul under the category of mere physical life, we bring life under the category of the soul. The same principle which shows itself in the human organization—which gives form and feature to the body—which adapts all the organs to their several purposes—which constructs the nervous system as the great medium of mental manifestation—which implants the instincts, and prompts the senses to their appropriate work,—this principle rises in due time to a *self-conscious* activity, in which it can recognise its own Divine origin, and aspire towards its equally Divine destination.*

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* This is completely illustrated by Dr. Carpenter's doctrine of the *correlation* between nerve force and mental force, by means of which he has attempted to reconcile the contradictions of ultra-Materialism, on the one hand, and ultra-Dualism, on the other.—*Principles of Human Physiology*, Sec. 805.

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* It may be interesting to offer a few historical notes respecting the problem now on hand. The view of *Aristotle*, as coinciding very generally with that just stated, has been already noticed. In modern times the question has been re-investigated under more advantageous circumstances, owing to the greater development of physical science. We may classify the progress of opinions respecting the essential nature of life, and its connexion with the phenomena of mind, as follows:—1. The chemical theory. This was represented by Sylvius in the seventeenth century, who reduced all the phenomena of vital action and organization to *chemical* processes. 2. The mechanical theory. This falls to the time when Harvey discovered the circulation of the blood, and Boerhaave represented the human frame as one great hydraulic machine. 3. The Dynamical theory. Here we have the phenomena of mind and of life drawn closely together. The writings of Stahl especially show this point of view. He regarded the whole man as being the product of certain *organic powers*, which evolve all the various manifestations of human life, from the lowest physical

Thus body and soul are not like two halves of the man. They are, as Carus beautifully remarks, like the centre and circumference of the circle; the one an *ideal point*, the other an *actual limitation*, both of which, however, are necessary to form the *reality* of the circle itself. Or to speak in the language of Aristotle, we

processes to the highest intellectual. 4. The theory of *irritation*. This we find more especially amongst the French physiologists, such as Bichat, Majendie, and others, who regard life as being the product of a mere organism, acted on by physical stimuli from the world without. 5. The theory of evolution. Schultz, and others of the German writers of the same school, regard life as a regular *evolution*, created by opposing powers in the universe of existence, from the lowest forms of the vital functions to the highest spheres of thought and activity. To these speculators nature is not a fixed reality, but a *relation*. It is a perpetual movement, an unceasing BECOMING, a passing from death to life, and from life to death. And just as physical life consists in the tension of the lower powers of nature, so does mental life consist in that of its higher powers. 6. The theory of a *Divine ideal*. Here, Carus, prompted by Schelling's philosophy, has seized the *ideal* side of nature, as well as the *real*—has united them together in his theory of the genesis of the soul, and thus connected the whole dynamics of nature with their *Divine original*.

Most of the purely psychological investigations of modern times tend towards the same point as those of physiology. In proportion as metaphysics have broken down the essential distinction between mind and matter, the way has been paved for the acceptance of the fundamental homogeneity of all vital and psychical processes, as well as their derivation from the one Infinite mind, as the source and substance of all creation.

may term the soul, the *entelechy* (εντελεχεια) of the whole body.

Observation IV. — There are several objections capable of being urged against this theory, which it may be well to notice. First, it might appear to some to involve the doctrine of *materialism*. Against this objection, I cannot do better than quote the language of Erdmann, who remarks in defence of the Aristotelian doctrine, as follows:—"If any one would conclude that the difference between soul and body, on this view of the case, is not perceptible, I answer, that it cannot possibly be imagined greater; for whatever predicate you may attribute to the body—*the exact opposite* will always apply to the soul. If the body exhibits a multiplicity of parts and members, the soul is not only *one*, but is that which brings back all multiplicity to unity. If the body presents an *externality* of one part to the other, the soul is not only that which is alike present *in all*, but forms the very connexion between them. If *matter* presents itself to us in the body, the soul, on the contrary, is that which *governs* all matter, and determines its changes." *

To those who have only been accustomed to conceive of real existence under the form of dead unconscious resisting matter, there may be some difficulty in grasping the *reality* of the soul, under this point of view, or of distinguishing it from a mere attribute, attached to the bodily organs. But this difficulty will not exist, when we have once seen, that the peculiar *essence* of every thing in nature consists in a hidden principle of life and development, and not in the individual and material phenomena. The actual matter of the human body changes many times over during our lifetime, and can never, therefore, constitute the real man; so that even, *physically speaking*, the real man consists in the abiding power, which the body contains, to assimilate everything to a given form and idea. And what is the soul itself, but the same power, viewed on the *ideal* side of its nature and operations?[*]

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* "Psychologische Briefe," p. 149.

The charge of materialism, in fact, is the *very last* which can be justly urged against this theory; it may seem to be open, in some minds, to the charge of a *too refined* idealism, which charge, indeed, has not unfrequently been preferred against it.

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[*] Compare the following passage from Bunsen's "Hippolytus," vol. iv., p. 60. "We must now see what we understand by an ideal and a real existence. I presume, then, that we take *real* in the sense, that it means what exists in time and space, and *ideal* in the sense that it signifies the creative thought of the same—that which, in all these changes, constitutes the unity of the evolving existence. This thought *is* existence, yea, the only true existence in the highest sense, because it not only does not change, but we have declared it to be the cause of all changeable existence. We may therefore say, that thought, identified with will, and animated by love, is that which must be called *the being* (το ον), that which *is* in an eminent sense."

A second objection might be made as follows. If the soul and the body are two things so essentially opposed as to their properties, how can there be a mutual interpenetration of one with the other? Before any one venture to make this objection very decidedly, he ought to know more perfectly than we actually do, what the *body* really is. Of all ideas we have to deal with, there is, in truth, *none* more dark and undefined than that of matter. That the *properties* of matter, as they present themselves to the senses, can be clearly enough defined, and a science of mechanics, &c. founded on them, we admit; but the problem now before us is not to show, what are the sensible phenomena presented by the material world, but what matter itself, essentially speaking, *is*; what it is in relation to thought, and to the soul as the principle of thought. The further our analysis of the essential nature of matter extends, the nearer we get to the confines of the *immaterial*. This is, in fact, simply a proof, that the difference between mind and matter is only *phenomenal*; that just in proportion as we penetrate, by the power of thought, into the essence of them both, they are seen more nearly to coincide; and that the limit to which our knowledge of them tends, is the indifference point, where they blend in perfect unity.*

Here, then, the opposition, physically speaking, between mind and matter ceases, — and the whole question is raised to the higher platform, where the *conscious*, and the *unconscious*, appear as the two great poles in the universe of being. With a dynamical universe around us, in which the only fundamental distinction relates to the possession or non-possession of self-consciousness, the mutual interpenetration of all its parts is not a problem that presents any insuperable difficulty.

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* See Tissot's "Anthropologie," vol. ii., p. 346.

But then, lastly, comes the question of *immortality*. How are we to conserve this great moral truth, when the body and the soul are regarded as so entirely coincident, that the dissolution of the one would naturally suggest the simultaneous destruction of the other? The aspect in which the doctrine of immortality is placed by the acknowledged coincidence of body and soul, depends upon, whether we regard the real or ideal principle as containing the indestructible essence of existence, and the conditions of absolute perpetuity. Were the real regarded as prior in nature and development to the ideal, so that the soul merely appeared *phenomenally* as the result and function of the bodily organization, then, indeed, the hope of immortality could have no foundation in our psychological principles. It is, however, indispensable to the whole theory we have propounded, that the ideal should have assigned it a *prior* and an independent existence; that it should *constitute* the individuality of the man by its union with a bodily organization; and, finally, that it should comprehend in itself the essential conditions of one continued existence, throughout all the changes, to which our bodily organization is exposed.

If this be the fact, then the only thing which passes away with the dissolution of the body is the *mundane* individuality, *i.e.*, the entire complex of physical causes, on which the peculiarities of our mere *human* life and temperament depend. The very analogy, however, of a mundane birth, suggests a still higher birth, viz., the entrance of the pre-existent and immortal *ideal*, as trained and developed by human life into new relations; its connexion with a superior organization; and its advancement to a higher and purer individuality. In this view, death is but a crisis in our being, the dissolution of the *earthly* tabernacle,—"not that we may be unclothed, but clothed upon, with that which is from above."*

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* The paradox of the statement of the natural immortality of the soul, it will be seen, is here entirely avoided,—that, I mean, which attempts to attribute *essential immortality* to a being, whose existence is but of yesterday.

CHAPTER III.

FIRST STAGE OF INTELLIGENCE.—INTELLIGENCE AS SENSATION.

Das Seelenartige, in welchem alles Leibliche der Natur sich, wie in einem inneren unsichtbaren Abgrund versenkt, und aus welchem die Welt einer inneren unendlichen Thätigkeit, allmählich reifend, hervorquillt, ist *die Sinnlichkeit.*—STEFFENS.

WE now leave the pathway of speculation altogether, and enter the region of positive facts. Empirical observation, as we have before shown, points out three great spheres of mental activity,—those which are termed respectively Intelligence, Emotion, and Will. In pursuing the course marked out by the scheme above presented (p. 65), it will be, on the whole, most convenient to take *one* of these three departments at a time; keeping in mind, however, that we only do so for the convenience of scientific analysis, not because there is any real separation in nature between them.

Of the three departments which we have thus to consider, that of intelligence is undoubtedly the most clearly defined, the most readily analyzed, and the most *distinctive* in its whole character. On this account it claims precedence over the other two in our psychological plan; for, having once discovered the various ascending steps in the development of intelligence, we shall have the better clue for understanding the corresponding phenomena of the emotions and the will.

The term intelligence may be explained as including *all the mental phenomena which contribute immediately to the production of knowledge.* To understand these mental phenomena aright, and to connect them together in an ascending series, we must go to the very bottom of the scale, and trace the process by which consciousness itself (the primary condition of intelligence) is first of all developed.

I.—THE QUESTION STATED.

To some the objection may here present itself:—Can sensation be termed a *form of intelligence* at all? Is it not rather a primary *feeling,* altogether anterior to knowledge? This objection would doubtless hold good were we to regard the human mind as made up of a number of independent faculties, of which sensation is one. The whole theory of *separate faculties,* however, has, in the very outset of our present inquiry, been abandoned, as tending to confound, far more than to explain, all the great questions in psychology. In place, therefore, of meeting the objection above stated *directly*, we shall, first of all, attempt to place the entire subject in a somewhat clearer and more tangible point of view, and see what conclusions we can *then* draw, as to the real nature of the sensational consciousness.

What we have now to consider, under the term sensation, is mind—*the entire mind*, on the lowest, and, if we may so express it, the most *physical* stage of its activity. This stage must undoubtedly comprehend some element, which contributes directly to knowledge; for all our knowledge of the outward world is based upon it as its primary condition. At the same time, it undoubtedly contains other elements as well;—that is, it involves, side by side with the primary efforts of intelligence, the co-ordinate efforts both of the emotions and of the will. The whole man, in fact, must be present during this, as during every other stage of our being. What may be detected, as the first phenomena of feeling and volition, we shall have to consider in the proper place, but whatever, in these early manifestations of consciousness, stands connected with and related to the whole subsequent process, by which our knowledge of external things is developed and completed, this we put down as belonging to the first or sensational phase of human intelligence.*

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* "It is manifestly impossible," remarks Sir W. Hamilton, "to discriminate, with any rigour, sense from intelligence. Sensitive apprehension is, in truth, only the recognition, *by*

Let us then go back to the point, in the development of the human individual, where we before left off. We imagined the soul, passing over from the region of the ideal to that of the real, and launched, in the form of a minutest cell, upon the ocean of time and space. From that moment onwards, we can trace its development, guided not only by analogy, but also by *facts.*

The development of the human individual is, at first, embryonic. During this stage, the facts of consciousness are all wanting; but yet we can trace the existence of the soul, in connexion with the nascent organization, *experimentally,* since we can observe its effects upon the physical processes there in operation. The law by which the organs of the frame, one after the other, are perfected —by which a "*physique*" is formed, suited to all the subsequent wants, longings, and even possibilities of the future man, must follow the secret workings of an *immanent* principle; a principle which, although it does not yet come to a state of self-consciousness, is as truly *the embryo soul,* as the other is the embryo body. The two, in fact, are never for an instant separated, from the moment they enter the region of time and space. Their union constitutes the essential mode of our present existence; without it, human existence were a nonentity.

When the embryonic life is past, and the individual comes forth to play his own independent part on the

intelligence, of the phenomena presented in and through its organs."—*Note D, on Reid's Works.*

stage of human existence, we find both the real and the ideal side of his being to a certain degree formed and developed, the one, too, exactly corresponding with the other. On the one hand, we find a physical frame perfectly constructed; on the other, we find the indications of a soul, capable of supporting, independently, the functions of life, and able to move the organs of the body in accordance with the instincts of self-preservation—just opening, in fact, into a state of nascent *consciousness.*

During the embryonic period, the hidden soul was √ existing, in a state of *unconsciousness;* it acted, indeed, already, according to the laws of reason; but, like the rest of organic nature, it was slumbering in darkness, and following its inward law without light or freedom, the will not yet unloosed, the *self* not yet realized. It is not possible that this entire dependance on natural organic laws should be *at once* removed; that the spell should *suddenly* be broken; that the individual should spring, at one leap, from a state of unconsciousness, to perfect freedom and self-possession. All the analogies of nature show the necessity of a gradual process of transition from the one state to the other, a transition in which the lowest form of the *conscious* life shall be removed only by one degree from the *unconscious.*

Now the primary manifestations of our nascent consciousness, we find, present exactly the medium position between dependance and independence, *a position in which the soul begins consciously to act* *for itself, but acts only responsively to the stimuli of physical influences.* So long as this step in our development lasts, the individual is said to be *on the purely sensational stage of his history.* Our present problem, then, is to determine the essential characteristics of this peculiar sphere of our mental activity.

II.—SENSATION PHYSICALLY CONSIDERED.

Physiology shows us, that the portion of the human structure, which stands in most immediate connexion with the mind, as receptive of physical stimuli, is the *nervous system.* Man is formed to act in concert with the vast framework of nature which surrounds him, and of which his own corporeal frame is a portion. He belongs, physically speaking, to the same order of things, and is subjected to the same material laws. The sensory apparatus is the *link* which connects our inward mental activity with the properties of the external world, which allows influences to pass and repass from one to the other, which binds indissolubly together the regions of consciousness and unconsciousness. It is in the functions of the nervous system, accordingly, that we must begin to study the lower operations of the soul; so that it will be conducive, not to say essential, to our purpose, first of all, to give some general idea of the working of this part of our bodily structure.

It is not our intention to enter here into any *anatomical* description of the nervous system, since that can be gained far better from any of the professed works on the subject; we shall only explain its structure and operations so far as is requisite for our present purpose.

If we can imagine the bones, muscles, skin, and all the other portions of the human frame to disappear, and the nervous system *alone* to remain, that remainder would present to our view the entire human form, figured out, towards the circumference, in the most delicate fibrous trace-work. The fibres, however, of which it consists, approach more and more towards a solid mass, in proportion as you get nearer the central line or axis of the body, first uniting together in the spinal cord, and then developing themselves, at the summit of the spine, into the whole complex structure of the encephalon. Every portion of the body is thus more or less *penetrated* by these nerve-fibres; and the impression which is made upon any one point of the circumference can be transmitted with unerring precision towards the central line, and, under proper conditions, still upwards to its final expansion—the brain.

In the lowest forms of animal life, the spinal cord, with its ganglionic knots, forms the *only* centre of nervous influence. As we approach the higher, and, especially, the *vertebrated* form of animated nature, the spinal cord expands into a mass of sensory ganglia, which give rise to progressively higher modes of sensitive life. The cerebrum next appears; which is, at first, however, in the lower vertebrata, very small in comparison with the other portions of the encephalon; but becomes relatively greater and greater, until it obtains that vast preponderance which we see in the human system. Accordingly, there are three main centres of nervous force apparent in the structure of the animal frame: 1st. The spinal cord, from which proceeds almost the entire power of exciting muscular movements. 2dly. The sensory ganglia, from which flow the various forms of sensitive life. And, 3dly, The cerebrum itself, which is found in man to subserve the loftier purposes of intellectual and voluntary activity.*

Let us consider next the *materials* of which the nervous system is composed. If we look, first of all, at the brain itself, we find that the main substance of it consists of a compact mass of white-looking material; while all around this material, and following its multifold involutions, is a coating of gray matter, which forms into large ganglionic masses at the base of the brain, and constitutes what we have already designated as the *sensory* apparatus. The structure of these two materials is physiologically extremely different. That of the gray matter is vesicular, while that of the white is simply fibrous; the former more nearly allied to the cellular structure of the whole organic system, the latter losing all trace of this structure in its thin fibrous development.

This twofold material, then, appears in varying proportions throughout nearly the whole of the nervous system. The gray matter is found along the interior of the spine, here in larger, and there in smaller quantities; while the white matter, drawn out into bundles of fibre, constitutes the whole exterior mass of the spinal cord, and develops from thence into those myriads of fine white threads which intersect one another in countless ramifications, and form the media of communication from all parts of the circumference to the cerebral centre, and again from the centre to all parts of the circumference.

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* See Carpenter's "Human Physiology," chap. xiv.

After these few preliminary explanations, we are the better prepared to explain the *action* of the nervous system, and to show how it stands in connexion with our mental manifestations. It was formerly imagined that the nerves were merely *tubes* for the circulation of a fabulous matter, termed *animal spirits*. When this doctrine failed of experimental proof, the *vibratory* theory succeeded to it, as expounded in Hartley's celebrated "Observations on Man." These and similar speculations were usually entertained amongst physiological writers of this and other countries, until they were all thrown into the shade by the great discovery of Sir C. Bell, that the nerves are really of different kinds, and perform several distinct functions in the animal economy. Those which spring from the posterior portions of the system, he showed convey *sensation only*, while those springing from the anterior subserve as exclusively the purpose of *motion*. The former, accordingly, have appropriately been termed *afferent*, as conveying impressions from the different organs of the body *towards* the centre; the latter have been termed *efferent* and respondent, as conveying the reactionary movement *from* the centre back again to the circumference.

It is not to be imagined, from what we have above said, that the nerves of sensation can propagate *images* of material things; there is no evidence whatever that the nerves ever receive such images, or that they are capable of transmitting them, or that an image can in any sense whatever reach the mind, or that, if it did so, it would account for any one phenomenon connected with human knowledge. The nervous system is susceptible simply of *impulses*. It possesses a peculiar sensitivity, which corresponds in every separate organ to the appropriate stimulus; the optic nerve to the rays of light, the auricular nerves to the appropriate vibrations of the atmosphere, and so forth. Thus, what the nervous system really does, is, to make us conscious of the *conflict* of the external world with our organic nature; to communicate all the impressions which that conflict excites, and to enable us reciprocally to react upon the world. It is the field on which the whole battle between self and nature has to be fought, a battle so fruitful of consequences to both parties in the encounter.*

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* See Carus' "Physis," p. 311, *et seq.*

We have, then, now before us three distinct portions into which the whole nervous system has shown itself to be divisible, each portion distinguished by a peculiar *function*. First of all, there are the afferent nerves, which convey impressions from without towards the centre. These nerves terminate in the ganglionic masses, composed of gray matter, which cluster around the base of the brain; terminate, moreover, not in any distinct points, but in *loops*, which are probably connected with the returning motor system. Secondly, there are the motor nerves, which run *from* the ganglia to all parts of the human body, and convey the appropriate energy, necessary for vital or muscular movements. Then, thirdly, there are the *ganglia themselves*, in which all that nervous force is generated, which produces the proper reaction, so soon as any impression from without has excited them to the performance of their peculiar function. The fibrous portions of the nervous system, accordingly, appear to be simply *internuncial, i.e.*, adapted for conveying the impulses impressed on them from one point to another. The vesicular matter, on the other hand, constitutes the apparatus for generating nervous energy, in whatever way that energy may be afterwards expended.

The actions which result from this development of nervous force may be wholly without the region of consciousness, or wholly within it, or partly within and partly without. Thus, the action of the heart is kept up by means of nerves which operate entirely apart from the human will or consciousness; those which produce the action of the lungs are partly involuntary, and yet partly under the cognizance of the mind and dominion of the will; while those which give motion to the different limbs may operate either with or without the *consciousness* and either with or without the *will*. Whichever it be, however, they still perform their functions with the same unerring certainty.

Let us now return to the three great nervous centres (those of the spinal cord, the sensory and emotional ganglia, and the cerebral hemispheres), and see in what way they are related to each other. It was surmised by Unzer, in the last century, and demonstrated by Dr. Marshall Hall, at a more recent period, that the brain is not the only portion of the nervous system which has the power of reaction, but that other parts of it may also form an *independent centre of nervous influence*. The spinal cord, for example, is the centre of a force which excites muscular movements throughout the various organs of the body, and that entirely apart from any effort of the will, or any recognition by the consciousness. This is proved, not only by observations upon our own involuntary actions, but by the still more crucial fact, that frogs and other animals, after decapitation, will continue, if the nerves are stimulated at the extremities, to perform the action of walking, &c., *so long as the spine is left entire*, but fall asunder, entirely relaxed, the instant the spinal cord is withdrawn.*

Again, there is another vast centre of nervous influence in the *sensory* system at the base of the brain. Here lies, as we have seen, the great seat of *sensation*. And, as the nerves of the senses terminate and result there, we must also fix upon this as the precise locality from which all those movements proceed, which are immediately connected with, and originate from different modes of sensation merely.† To these belong all that class of actions which we term purely *instinctive* —actions which do actually result from certain sensations that reach the consciousness; but which are produced as an immediate *reaction* from them, quite apart from any effort we put forth, either of the *understanding* or the *will*.

Then, thirdly, we have the cerebral hemispheres,—the great centre of all intelligent and volitional energy. This energy manifests itself, not immediately upon the organs of the body, but primarily upon the *sensory system*, and then, through it, upon the entire frame.

There is reason to believe that every individual nerve pursues its own way through the whole system, up to its final destination in the encephalon; and this enables us the better to understand the operation of the great law of nervous action, to which we must next refer; a law, the full development of which is due only to the most recent physiological researches.*

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* These nerves are termed by Dr. M. Hall, the *excito-motor system*.

† Hence termed by Dr. Carpenter the *consensuous*, or *sensori-motor* system.

The law may be stated as follows: when any appropriate stimulus makes an impression upon the corresponding nerve at any point in the circumference, the first tendency is for that impression to follow the pathway of the nerve or nerves affected, through every intermediate region up to the *cerebrum itself;* and, then, having excited the mind's attention, and roused the activity of the will, to be reflected back along the motor nerves, and give rise to any external movements which the case may demand or suggest. Just as in the electric telegraph, when the magnetic current is once excited, the impulse impressed passes all the various stations on the road, speeds on to its destination, gives an intelligent hint to the mind there located, and then elicits a response, which originates *anew* in that mind, back to the other extremity.†

This, then, we say, is the law of nervous action, *in its full, unrestrained operation;* the physical apparatus forming, as it were, a complete magnetic system, with its two opposite poles of action and reaction. This law, however, undergoes various modifications, which give very important results in the working of the human economy. It sometimes happens that, for various causes, the original impression cannot actually reach the brain. Either there is some physical impediment to it, or the nerves are expending their energy in some other direction, and cannot receive, at the moment, a new stimulus. In this case, the impression *stops short* at one of the other centres, and is reflected back from that centre, through the motor nerves, without exciting the mind's attention or awakening the energy of the *will*. And yet these *reflex actions* are as appropriate as those which flow directly from a mental purpose; nay, in cases of purely physical necessity, are far *more suited* to the exigency of the moment, than any which the mind could have consciously suggested, or the will put in execution.

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* Especially to Dr. M. Hall, Dr. Laycock, and Dr. Carpenter.

† Observe, that there is no image sent by the nerves to the brain of the external object, any more than an image of the man who ought to be hanged is sent by the electric telegraph, when the police are warned by it of the probable arrival of a murderer at the other end.

Each of the several centres to which we have already referred may thus become the point, from which impressions are reflected, and with a wholly different result in every case. Thus, if impressions are reflected from the spinal cord, muscular movements *alone* follow without any sensation or consciousness whatever. Of these phenomena numerous examples may be found in almost any modern physiological treatise.

Next, if the impressions are reflected from the sensory ganglia, then feeling and consciousness will be actually awakened; but the movements consequent upon them will be wholly *automatic*, influenced simply by the sensation, and not at all by the will. Such movements, for example, as winking the eye, to prevent injury; shrinking, to avoid danger; balancing the system, to prevent falling, and numerous others, come under this class: movements which in the lower animals usually take the place of the *will*, and in man undertake the same duty, whenever the will would not decide quickly enough, to accomplish the purpose required without physical inconvenience.

But, thirdly, it has been shown by Dr. Laycock,* that the cerebrum itself is also a centre of *reflex action*, that the nervous impression may excite some *special* activity there, and that both ideas and emotions may flow on from this excitement, without any of the governing power of the will. This is seen in dreaming, still more clearly in somnambulism, whether natural or artificially superinduced; and it not unfrequently forms the prominent characteristics of men, who possess large intellectual faculties and strong emotions, with no corresponding power of voluntary self-government. Indeed the brilliant qualities which appear in men of genius, often result from the spontaneous reflex action of the cerebrum urging the individual onwards with extraordinary force in one particular train of thought and feeling, independent of any effort, or even of any desire of his own.* To a certain extent, indeed, the whole flow of our thoughts and ideas may be termed *reflex;* for though the will may *guide*, it is never able actually to *originate* them.

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* In a paper read before the British Association at York, in 1844.

Over all these centres of reflex action, we find, lastly, the dominant power of the will, the most distinctive feature of humanity, and that which gives both unity, purpose, and complete harmony of action to the whole man. That the action of the will stands in correlation with any special state of the nervous system, has not, as far as I am aware, been distinctly affirmed by any physiological writer, while the phrenologists virtually disown the very fact of the will altogether. It appears to me, however, viewing the question upon rational grounds, and following the analogy of the reflex actions generally, that, just as an act of the will embodies the effort of the whole man, implying, at the same time, intelligence, feeling, and force; so, physiologically speaking, this state of mind will stand in correlation with the *total affection* of the nervous system. Affect the spinal cord, and we have simply excito-motor actions; affect the sensory ganglia, and we have consensuous actions; affect the intellectual and emotional regions, and we have emotional and ideo-motor phenomena; lastly, if the affection reaches its full height, and brings the whole nervous system into one united attitude of attention, then we shall have that state of purely voluntary activity, which expresses the concentration of the whole man in the deed and effort of the moment. Thus, instead of throwing the power of the will *out of* the sphere of physical influence, and fixing it in some transcendental existence, we regard it as an expression of the totality of our organic power, the whole governing the parts and directing them to the fulfilment of the one great purpose of human existence.*

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* *Coleridge* and *Mozart* are instanced by Dr. Carpenter as being types of this psychical character, each in his own particular department. ("Principles of Human Physiology," p. 817.) To distinguish these phenomena from the rest, he has termed them *ideo-motor* actions.

To make these several operations more intelligible, I borrow, with a slight modification, the following diagram from Dr. Carpenter's "Human Physiology," (fourth edition), in which the upward arrows denote the course of the *afferent* innervation, the horizontal the course of the reflex actions; and the downward arrows the course of voluntary effort.

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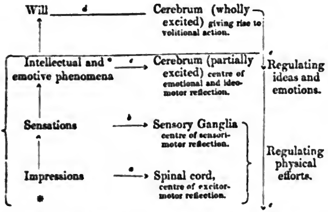
* We do not intend by this, that voluntary phenomena are merely *the function* of the cerebrum in this particular condition. We regard the soul and its organ as being perfectly correspondent *throughout the entire series of our psychical activities;* the reaction in the case of sensation being as much an effort of the spiritual principle adapted to the precise circumstances of the case, as are those higher energies which we include under the term *voluntary*. There is, in fact, the same relation between will on the lower and higher sphere, as there is between intelligence in its sensational and its purely rational form.


Will
d
Cerebrum (wholly excited) giving rise to volitional action.
Intellectual and emotive phenomena *
c
Cerebrum (partially excited) centre of emotional and ideo-motor reflection.
e
Regulating ideas and emotions.
Sensations
b
Sensory Ganglia centre of sensori-motor reflection.
Regulating physical efforts.
Impressions
a
Spinal cord, centre of excitor-motor reflection.
f

* We have classed the intellectual and emotive phenomena together as emanating from *one common centre*, namely, the cerebrum. Analogy, however, seems to favour the notion that they have *really independent* centres; and I am indebted to my friend, Mr. Noble, for the suggestion that the actual centre of the emotions is to be fixed in the *optic thalami* and the *corpora striata*. This would harmonize extremely well with the whole observed development of our knowledge, which, commencing with a physical impulse, appears next in the form of an incipient mental sensibility, and then expands into distinct notions or ideas; which ideas can, then, in their turn, react upon the emotions. The position of the above-mentioned ganglia at the base of the hemispheres, corresponds exactly with the supposed function. They lie midway between the sensory ganglia on the one side, and the cerebral hemispheres on the other, and have fibres which communicate downwards to the one and upwards to the other. We shall pursue this investigation, however, further when we come to treat of the emotions and the voluntary power, in the next volume of the present work. Meanwhile we include the two ganglia above mentioned under the cerebral centre, and leave their precise function in

Here, it will be observed, the asterisk * denotes the starting point of the whole process, which begins, as we have seen, with a physical impression from without. If anything prevent the passage of this impression upwards, it is reflected at *a*, along the spinal cord. If it pass to the next stage, produce a sensation, and is *then* stopped in its course, it is reflected at *b*, from the sensory ganglia. If it reach the cerebrum *without affecting the whole system*, it suffers still a third reflex action at *c*. Lastly, if it accomplish its whole destination, the entire nervous system is awakened to it, the will excited, and a *voluntary reaction* ensues. The nature of this reaction we must next explain.

As voluntary effort results from the affection of *the whole system*, so it is calculated to work downwards *upon the whole*, as is seen at *e e*. This, however, it cannot do immediately.

The immediate action of the will is only upon the nervous centre, *which lies at one remove below it*. We can regulate by it the flow of our *thoughts*, and control the working of the *emotions;* but we cannot perform by a direct voluntary effort, the actions which belong either to the sensori-motor or excitor-motor centres. The sensory ganglia, again, lie, as it were, midway between the purely physical processes on the one side, and the ideo-emotional centre on the other. They can be played upon, therefore, either by actual

that hypothetical position in which it is acknowledged to stand, by modern *physiologists*.

impressions from below, or by ideas and emotions from above. When impressions, therefore, have passed through every stage into the brain—when the mind's attention has been awakened to them—when an ideal trace, image, or idea of them has been left there; then this *idea* may be reflected down upon the sensory apparatus, and produce the same effect at the extremities as that which is caused by the physical impulse itself.

Thus the idea of a pleasant taste will make the mouth water, and the idea of anything disgusting will produce sickness. When the nervous system, indeed, is brought into a peculiar state of sensitiveness it may be played upon by means of suggestions like an instrument, wholly responsive to the will of another. Hence the phenomena of what has absurdly been denominated *electro-biology*, in which ideas and strong suggestions are made to work *downwards* upon the sensory apparatus, till they overcome by their superior force the entire will of the individual, and produce a series of the most surprising involuntary phenomena.

Thus, then, we are brought to regard the whole cranio-spinal axis *as one great automatic system*, giving life and movements to the entire muscular frame, and carrying out its proper functions independently of any immediate direction of the will. If the will desire to influence it, it must do so through the ideas or the emotions which have their seat in the cerebral hemispheres. All human action accordingly, externally speaking, is really automatic; it results from a state of the sensory nerves, over which the will has no *direct* control; and it is thus that it enables us to perform all the functions necessary for the comfort and security of human life, even when the mind is wholly absorbed in thought, or feeling, or reverie.

Thus, too, the physical organ by which the soul operates is seen to be *one complete system*, all its parts wonderfully harmonized to produce at once the best and the most beneficent results. The connexion between its parts is perfect, the lowest form of impression reaching up to the highest centre of action, and that highest centre reacting down to the simplest muscular movements. While some sensation *ab extra* is always necessary, on the one hand, to guide the activity of the will, the will, on the other, thus guided can act through all the intermediate centres of nervous influence, down upon the simplest automatic movements of the outward organs.

In giving this brief sketch of the laws and operations of human activity, we have, of course, only viewed the question on the physiological side, and entered only so far into the higher operations of the mind as may enable us to understand the real nature of sensation itself. There is, in fact, no *precise* point in which we can draw the line of distinction between the two, either physically or metaphysically. Nervous force, we find, can replace mental force, and mental force can replace nervous. The same phenomena may pass in and out of consciousness, according as the superior system is affected or not. We conclude from all this, not that the two forces are distinct, but rather that they are one *at the root*. The great soul within is the mainspring of the whole; consciousness, intelligence, and volition being the *accidents*, and not the essential marks of the soul's operations.

III.—SENSATION PROPER.

Having now got a general view of the nervous system, and its connexion at once with consciousness and intelligence, we are better prepared to determine the precise nature of sensation, properly so called. Sensation always implies an affection of the nervous system, but an affection of a distinctive character, and holding a given place in the whole chain of vital manifestations.

There are many affections of the nerves, as we have seen, which never come into consciousness at all. These are usually attributed to what is termed *vital force*—an expression which, in fact, simply designates the actions of the soul, so far as they are purely instinctive and unconscious. On the other hand, there are other affections of the higher nervous centres, which correspond with the more purely intellectual and emotive activities. The sphere of sensation accordingly stands midway between these two. The former lie *beneath* sense, being more nearly allied to those instinctive and almost *vegetative* operations which are found upon the embryonic stage of our being. The latter lie *above* it, consisting of intellectual processes to which the stimulus of the senses has first given occasion. Sensation always implies an affection of the nerves *which passes to the sensory system*—to the real seat of consciousness, and there awakens the mind's attention to the impression of the moment. Its characteristics, accordingly, as based upon this description, may be summed up in a very few observations.

1. Viewed as a complex *process*, sensation lies partly without the consciousness and partly within. The organic impulse, from the time it affects the extremities of the nerves to the moment when it reaches the sensorium, lies wholly without the consciousness, and should anything happen to prevent the complete transmission of it, would always remain so; by proceeding, however, to the proper centre, it passes the line which separates the physical from the mental, enters the light of consciousness, produces a recognised impression, and thus becomes a psychological, as well as a physiological fact.

2. Sensation proper is not purely a passive state, but implies a certain amount of mental activity. It may be described, on the psychological side, as resulting directly from the attention which the mind gives to the affections of its own organism. This description may at first sight appear to be at variance with the

facts of the case; inasmuch as every severe affection of the body produces pain, quite independently of any knowledge we may possess of the cause, or of any operation of the *will* being directed towards it. Facts, however, rightly analyzed, show us, that if the attention of the mind be absorbed in other things, no impulse, though it amount to the laceration of the nerves, can produce in us the slightest feeling. Extreme enthusiasm, or powerful emotion of any kind, can make us altogether insensible even to physical injury. For this reason it is that the soldier on the field of battle is often wounded during the heat of the combat without discovering it till exhausted by loss of blood. Numerous facts of a similar kind prove demonstrably, that a certain application and exercise of mind, on one side, is as necessary to the existence of sensation, as the occurrence of a physical impulse, on the other.

3. The entire mental process which is necessary to produce sensation consists, according to what we have shown, in the mind receiving the affections of the body, and then embodying its own affections. It is the fact of action and reaction which first awakens the consciousness, just as the double magnetic current moves the needle. For the purpose of completing this circle, there is given an appropriate double system of nerves—the nerves of sensation carrying the affections of the body to the centre, and the nerves

of motion receiving the impulse and embodying the mental affection in the corresponding movement, mien, or gesture.

The nerves may be subjected to many impulses, affecting the body, and, indirectly, the mind, without those impulses ever coming into consciousness; and conversely, many actions may go forth from the vital forces (urged and impelled as they are by the soul itself) with an equal unconsciousness of their very existence. The instant, however, the whole circle comes into operation (like a magnetic chain), the instant an affection reaches the centre, provokes reaction, and is impelled back to the other pole, the light of consciousness at once breaks in, the mind is roused to a perception of what takes place within its own organic sphere, and a *mental* fact, indispensable to all our further knowledge, is the result. Sensation, accordingly, holds exactly the middle point in the soul's development, between consciousness and unconsciousness. On the one side of it are processes which are termed *vital;* on the other, processes which are termed *spiritual; in* sensation itself, the vital and the spiritual are indissolubly combined.

4. The last remark we have to make respecting sensation proper is, that in relation to knowledge it is *wholly subjective.* The affections to which the mind's attention is directed may be of infinite variety, but they are all affections *relating to itself.* The awakened consciousness is simply occupied with what passes

within its own sphere. No question has yet arisen as to an external world, or, indeed, as to any outward cause, by which the phenomena presented have been produced. It will be very easy to understand and represent the nature of this mental state if we use a verb in the neuter sense to designate a mental action confined to the agent, and then employ an adverb to express the particular *modification* of that action. Thus, in the expressions, I feel strangely, I see green (using green as an adverb), &c., we indicate a condition of mind in which there is a consciousness of a certain mental state, partly affective, partly active, modified *internally*, but not passing beyond the subjective sphere, to the cognizance of any *external cause.* Let the verb become *active* instead of neuter, and change the adverb into an *object* (as, I feel something strange, I see something green), and we have the characteristics of a new mental state, which we shall soon have to analyze under the name of "perception."*

IV.—VARIETIES OF SENSATION.

The human organism, then, is the field of sensation, objectively considered. All the affections, which, having commenced there, reach the centre of the system and engage the mind's attention, come alike under this designation. Of the countless nervous influences which thus stream in upon the mind, perhaps no two are exactly alike. There are, however, various *classes* of sensations, which can be easily arranged under certain heads, in virtue of some specific points of similarity, and it is to such a classification that we must next briefly direct our attention.

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* See Erdmann's "Psychologische Briefe," Letter 8th, and Hamilton's Reid, Note D *.

The first class of sensations we notice is well adapted to illustrate the subjective nature of these phenomena; it comprises all those undefined feelings by which we are made conscious of the present state of our whole physical organization. There is such a thing as a feeling of health and sickness, of lassitude and vigour, of hunger and thirst, of sleepfulness and wakefulness, of heat and cold, with many other similar phenomena. All these and such-like states of the body are undoubtedly conveyed by the nerves to the brain, and it is thus that they come clearly into consciousness ere they pass away or merge into other feelings.

Nearly allied to them are the different *muscular* feelings, which exist *independently* of any apparent external impulse. Thus shuddering, twinging, cramps, and a variety of other feelings arising from the particular state of the muscles, come clearly under the category of *sensations,* for in them all there is alike an affection of the nervous system, a transmission of it to the sensorium, and an awaking of the consciousness to the bodily condition of the moment. Here the process stops, as far as the *sensation* is concerned; for any inquiry into the cause or into the object of such feelings would be an *intellectual* process, clearly distinguishable from the *sensation* itself.

The other varieties of sensation can be more easily and more definitively classified, from the fact of their being distributed amongst *five* specific organs, each of which is adapted to convey one particular species of our sensible impressions. Of the five senses those of seeing and hearing evidently form one pair, smell and taste another, while the sense of *touch* stands alone, marked by many distinctive and remarkable features. Let us, then, briefly notice them in this order.

Sight and hearing have been termed by some the *objective*, by others the *theoretic*, senses. These names are merely employed to designate the fact, that they stand more closely connected than the others do with the intellectual powers, that they fix the mind's attention more directly upon the *object* affecting them, and that they make us less sensible than the rest of the corporeal affection apart from the objective cause.

This is seen from the fact, that in these two organs the pleasantness or unpleasantness of the *impression* is altogether subordinate to the other ulterior purposes they have to serve. While anything ungainly or grossly anomalous, or too violent in its effect, may produce a feeling something like pain to the eye and ear, yet in the great majority of cases the character of the subjective impression is *not thought of*, nay, is so absolutely *indifferent* to the real object we have in view, and so absorbed in that object, that we could pronounce no distinct judgment upon it when it is once past.

The same truth is indicated by the fact, that the terms used to designate the action of these organs, in nearly all languages, are identical with those which are employed to signify *intellectual processes.* Knowledge is called light, attention is called hearing; and thus *universally,* the analogies of language point to the closest connexion existing between them and the intellectual faculties.

If we consider, however, the *specific* characters of sight and hearing side by side with each other, we shall find a *contrast,* as well as a *similarity.*

The nerve of the eye is nearer to the frontal region of the brain; that of the ear to the cerebellum, and the posterior regions. The former, accordingly, being more nearly allied to the intellectual organs, is calculated to convey impressions, which appeal at once to the understanding; the latter, more allied to the region of passion and sentiment, is calculated to convey impressions which appeal rather to the deepest *feelings* and *emotions* of our nature.

"The one," says Erdmann, "is the *clearest,* the other is the *deepest* of the senses. The same contrast shows itself in the objects by which these organs are severally affected. In the former case, the object shows its outward *surface,* as it exists *unmoved* in space: in the latter case it betrays, by means of the tone it gives forth, what exists *within* and *under* the surface. It is not the form and colour of an object which tells *what it is*, but its sound. For that reason the sight of a thing, does not penetrate so much *to the heart*; it only tells us what is its *appearance*. On the other hand, the tone moves us; it tells us how the thing, or the person, stands *to the heart itself*. On that account, we can easily explain the phenomena so often observed, that deafness is hard and distrustful; while blindness is mild and confiding.

"We *see* things only at rest;—their motion is only observed *mediately*, by comparing a moving object with a resting one. On the other hand, we hear succession, *i.e.*, MOTION immediately; and rest (*i.e.*, the continuance of a tone), only by measuring it upon the flow of our thoughts, and the continuous pulsations of the moments. On that account, words (*i.e.*, the ever-recurring thoughts,) direct themselves to the *ear*; only where thought perishes, and turns into a dead letter, can words become *visible*. Inasmuch as sight gives *permanence* and certitude, I write a bill in black and white, and that gives *conviction*. If I want to be *moved*, however, I must *hear*. You may read many a thing *quietly*, which, if you read it aloud, would make your very voice tremble." *

The other pair of senses, which we mentioned, as related to each other, are those of taste and smell.

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* Erdmann's "Psychologische Briefe," p. 163.

These are of a far less objective and theoretic character than the two former, carrying the feeling of agreeableness, or disagreeableness, as connected with the *physical impression* much more prominently upon them, than the intellectual perception of the objects, to which they refer. In their use, moreover, they are practical rather than theoretical,—subserving the most important purposes in the economy of animal life, providing pleasures as well as selecting suitable sustentation for the body; aiming, in brief, at our physical comfort and welfare, rather than the development of our intellectual nature.

While their *immediate* object, however, is practical, yet each of these senses conveys impressions, which may easily be *idealized.* The taste penetrates far into the chemical constitution of bodies, and may be easily associated with a very considerable knowledge of their interior nature; while the smell, whose element is the *air,* awakens associations of a still more spiritual kind; and often calls back deep and long-forgotten feelings out of the volume of our past experience.*

Of all the senses, however, that of touch is the most universal in its applications, and the most necessary to human existence. It combines, to a certain extent, all the functions of the rest; being sometimes objective in its suggestions, and sometimes subjective; sometimes creating physical pleasures, at others intellectual ideas; enabling us, gradually, to replace, by manifold comparisons, the loss of the other senses, while itself can never be replaced by all the others combined.

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* Erdmann—"Psychologische Briefe" (p. 164), to which I am indebted for several of these views upon the senses. See also Karl Schmidt's "Psychologische Briefe," p. 68, *et seq.* Also, Fischer's "Grundzüge eines Systems der Philosophie," vol. ii., p. 146, *et seq.*

The more subjective phenomena of this sense, have, by some, been separated from the more objective,—the former being termed feeling, *par excellence*, the latter the muscular-tactual sense.

To the latter of these divisions has been assigned the chief agency, by which we come to the distinct conception of the primary qualities of the material world, and with a considerable amount of reason and probability. It is not to be supposed, however, that any knowledge of this kind is an *inference* from our sensational impressions. The mind, as we shall soon see, proceeds intuitively towards all the fundamental elements, of which human knowledge is constituted: and when we attribute the dawn of a given idea to any specific class of sensations, we are merely stating the *probable occasion*, upon which the intuitive powers in question are first called into exercise.*

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* Oken calls touch, the *earth-sense;* taste, the water, or *fluid-sense;* smell, the *air-sense;* hearing, the *motion-sense:* and sight, the *light-sense.* Although we cannot always classify our sensations by the objects to which they correspond; yet in the case of the special senses there is manifestly a relationship between each organ and some peculiar mode of objective exist-

Thus, although to mark the distinctive characteristics in each of the senses, we have pointed to the *ideas* which are excited by them, yet it must not be supposed that these ideas are contained, or even organically *involved* in the sensation itself. All sensation, as we have before explained, is purely subjective in its character; consisting simply and solely in the conscious-

ence; and the terms which Oken has employed to designate them evidently come very nearly to a proper designation of this relationship. There are various questions respecting *double*, and *inverted* vision, &c., which have often been discussed in connexion with the phenomena of sensation. So far as these have any psychological interest, they must find their solution in the philosophy of perception. The English reader will find them well treated of in a very pleasant and useful little work (which forms, indeed, an excellent introduction to the study of the mind), on the "Philosophy of the Senses," by Robt. S. Wyld. Edinburgh. 1852.

The following six laws are given by Karl Schmidt, as distinctive of the peculiarities of sensation generally:—

1. The organ should never be *overtaxed*.
2. By periodical exercise the organ is always *strengthened*.
3. Every special object requires a special mode of activity.
4. The longer the impression upon the object lasts, the keener is the object felt; and the less the organ is exercised, the longer must it occupy itself with the object, if it will completely apprehend it.
5. The organ receives freshness and life, when fresh and living objects are given it, as it were, for nutriment.
6. The organ can only be harmoniously, entirely, and completely satisfied by an harmonious, entire and perfect object.—*Anthropologische Briefe*, p. 94.

ness of our own bodily states, and affections. Whatever is afterwards added to this consciousness, or whatever of knowledge or idea *grows out of it*, it is all due to a development of mind higher up the scale than sensation itself. This being kept in mind, we shall now, in conclusion, show, *how* this further development, first of all, begins to appear.

V.—RISE OF SELF-CONSCIOUSNESS.

It is a peculiarity of the view, which we are now taking of the human mind, as an *organic* development—that there is no precise line of demarcation between the faculties. As in the growth of the plant, all the different stages through which it must pass, merge insensibly into one another, so also is it with the growth of the soul. We have just pointed out the most peculiar and distinctive characteristics of the sensational sphere of its existence; but it would be wrong to suppose that there is any *sudden* change, which takes place, from this sphere to the one next above it. So far from that, the change, as it exists in nature, is extremely gradual,—too insensible indeed for any analysis, however acute, to define the *exact point or period* of separation.

Notwithstanding this, we may observe and may explain, without much difficulty, the *preparation* which takes place for the advance of the human intelligence upwards from its sensational to its intuitional form. This preparation chiefly consists in the rise and development of *self-consciousness*; for it is in the clear separation of *self*, from the world around us, that all perception, and indeed all knowledge, properly so called, commences.

From the explanation already given of the nature of sensation, and the infinite variety of phenomena it presents, we can easily imagine, in what a chaotic confusion of impressions the mind must at first be involved. Sounds, sights, tastes, smells, feelings external and internal, all press onwards in countless multitudes to the centre of the system, and summon there the soul's attention. Without some point of *unity*—some *fixed reality* running, like a continuous thread, through all these phenomena, our whole sensational life would be but a succession of mere impressions;—each point of existence being distinct from the other, and each renewed sensation, like a momentary life and death of the whole individual. In this chaos of impressions, accordingly, *a middle point* soon begins to appear, around which they all tend to cluster; order begins, then, to ensue; a dim connexion between the phenomena, of the different senses, makes itself manifest; and the shadow of a *continuous life*, of which these impressions are but the passing phases, is projected from out the dark confusion. *This shadow is the first rise of self-consciousness*,—the middle point of our phenomenal existence—the unity around which all our sensations, from the earliest periods, are gradually marshalled. *The primary form of self-consciousness, accordingly, is the unity of sense.*

The rise of this unity prepares for an entire revolution in the whole form of our intelligence. *Before*, every feeling was purely *subjective*,—a momentary state of consciousness, passing by, to make way for another equally independent and equally fleeting. *Now*, a duality is introduced. Here, on the one side, is the abiding self—the real point of identity, amidst all the flow of our feelings;—there, on the other side, are its varied phenomena. With the consciousness of self, accordingly, there rises, in exact counter-relation, the consciousness of the phenomenal world. Self-consciousness and world-consciousness, are thus indissolubly associated; the one cannot exist without, but only by, the other. Self is first perceived, as that which is *not phenomenon*; the world is first perceived, as that which is *not self*. As there would be no light to us without darkness, as there is no finite without an infinite;—so it is by the separation of *self*, from the chaos of our subjective sensations, that the world, *as far as our consciousness is concerned*, is first created. Hence, by affirming *the me*, we create for ourselves the *not-me*;—and it is, by the power of self-consciousness, that, psychologically speaking, we construct the universe.

The instinctive curiosity of the infant—his love of play,—his impetuosity against control,—his destructiveness of everything that comes within his grasp,—

his evident impulse to rule, to master, to annihilate, to despoil,—all are alike indications of a state of mind, in which self-consciousness has just dawned, and is disporting itself in a new life, to which it knows, at present, no proper limitation.* All this, however, is but an education towards a further and a higher purpose. By these means the soul gradually finds its true place in the universe, sees itself as part of a great system, against whose laws it is vain to strive; and prepares for that coming stage of development, in which it contemplates both *itself* and the *world*, not for the sake of struggle, or dominion, but simply for the *intuition of Truth.*

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* The development of self-consciousness in the child, as in the history of the world, and the phenomena by which it is accompanied, are somewhat minutely analyzed in Hegel's "Phänomenologie des Geistes," and have been reconsidered by most of the Hegelian psychologists, especially Erdmann.

CHAPTER IV.

SECOND STAGE OF INTELLIGENCE.—INTELLIGENCE AS INTUITION.

> Wir erfassen die Wahrheit nur so tief und so weit durch entwickelte und vermittelte Erkenntniss als wir sie *unmittelbar* inne werden, d. h. innerlich erleben oder erfahren. Daher gilt das *credo—i.e., experior ut intelligam* nicht nur von der Wissenschaft der Religion, sondern von der lebendigen Erkenntniss aller Wissensgebiete.—Fischer.

Before proceeding further, let us reconsider the point to which we have now arrived, in tracing the mind's organic development. The physical frame and nervous system are already complete, the appropriate stimuli from without have acted upon the various organs of sense, awakened the nervous energy, reached the centre of the system, furnished the mind with a countless variety of impressions, and excited it to react along the motor nerves to the various extremities of the bodily organization. In addition to this, a central unity has begun to appear amidst all the variety of our mental phenomena; for the feeling of self-consciousness has bound the multiplicity of our sensations together into a wondrous harmony; and, simultaneously with this, the reality of the phenomenal world, as something distinct from self and its affections, has just dawned upon the mind.

With the first dim revelation of self and the world, accordingly, we begin this new stage of our intellectual being. Hitherto the mind has acted only in response to some physical impulse: its activity, therefore, has been bound down to the sphere of sensible impressions, has shown no independence, no ideality, no freedom. The only approach to any pure mental activity has been the rudimental development of a self-consciousness and a world-consciousness, rising out of the primitive chaos of conflicting impressions. What, then, we have to inquire, will be the form of the human intelligence, when the mind has once broken loose from the physical impressions of the senses, and when it can view itself, and the universe, as *separate* and *opposed* realities?

Up to this point we must remember there are no signs to aid it, no words, no associations, no traditions. The bias of age, country, civilization, education, all is as yet unknown. Here is the soul on the one side; there, the universe on the other. The soul, moreover, though already awakened to self-consciousness, yet has no other tendency within it than to yield itself to the first and freshest suggestions, both of its own nature and of the world around it. The problem, therefore, we have to consider is this: supposing, after a nervous impression has reached the sensorium and provoked a reaction, we were immediately to draw an imaginary line, which should separate this from all further effects—what will be the precise character of the mental phenomenon that presents itself directly we cross this line, and enter into the more intellectual side of the whole process?

I.—ON THE THEORY OF PERCEPTION.

We shall approach the problem above stated most conveniently on the side of the material world, and its *physical* qualities. The effect produced upon the mind by an external impulse, as we saw in the former chapter, is termed a sensation: that which immediately follows after the sensation has been experienced, is termed, in our usual philosophical phraseology, a *perception*. It is, therefore, to the nature and theory of perception that the proper development of our psychological scheme now naturally leads us, and to which, therefore, we must next of all direct our attention.

There are two extremes in the views which metaphysical writers have taken upon this subject. The idealist, on the one hand, has attempted to account for the entire phenomena of the case by the inherent power of the mind; which, raised above the influence of material things, he conceives, constructs the whole succession of such experiences, for itself, and then lives in the ideal world of its own creation. The arguments for this position, taken chiefly from the necessary homogeneity of the knowing and the known, are subtle and acute; but need not, at least in this country, any elaborate refutation. That they have tended to introduce a more spiritual view of nature, is their merit, and perhaps their mission; but that they will ever establish themselves, in the long run, against the practical realism of mankind, is neither to be hoped nor feared.

For the same reason we may pass by the theory of occasionalism, according to which we are supposed to experience all the phenomena ascribed to perception in pursuance of an immediate Divine interposition, not because there is any direct intercommunication between the soul and the world. In this doctrine we have simply a "*Deus ex machinâ,*" to solve the old difficulty respecting the intercourse of mind with nature, in place of a direct attempt to analyze and explain it on natural grounds; and the very failure of all natural attempts to probe the question to the foundation is its best and only apology.

The *opposite extreme,* however, to these idealistic hypotheses, is one which demands a more careful consideration;—that, namely, which regards our perceptions as being simply *impressions of external things,* stamped materially on the senses, and so, through them, upon the mind itself. According to this theory, we must regard the human organism as possessing a species of machinery, by which the forms and physical impressions of nature are taken up and conveyed to the soul. The trace which the actual impact between the outward object and the nervous system has left, first on the physical and then on the mental substance, is supposed to be the real basis of our subsequent knowledge of it; that knowledge not being able, in any case, to transcend the limits of those ideas, which are involved in the whole sum of our external impressions, when duly classified, compared, and subjected to the still further operations of the reasoning faculty.

Now we need not wait to comment upon the extreme indefiniteness of the terms *impression, trace, idea,* &c., as employed in this whole perceptional theory. The smallest consideration will be sufficient to show us, that, admitting the existence of material impressions, and even images, on the organs of sense, yet the succeeding *perception* must involve the co-operation of another factor, which will greatly modify the final result: I mean, that of the perceiving mind. However similar the outward impressions may be in any two cases, yet we know by actual experience, that the resulting *perception* will vary greatly, in its whole nature and contents, according to the mental constitution of the *percipient.* To take an extreme case: mark the difference between the effect of an organic impulse upon the brute mind and the human mind. In the former instance, there is a mere instinct aroused, and nothing further; but, in the latter case, there is superadded to this instinctive element an intelligent mental action. The mind meets the impression, if we may so speak, upon the sphere of the nervous system, idealizes it, completes it as an intellectual phenomenon, and, having done so, attains to an appreciation of the actual properties of the thing presented, so far as it affects ourselves, such as could never be accounted for by the mere transmission of any physical impression.

That our perceptions of external things, therefore, are simply copies of outward existences, is manifestly untrue, since a large element in their formation does not come from the external impression at all, but from the internal faculties of the perceiving mind. Just as the same air and moisture will produce in one case the materials of a lily, and in another of a rose, according to the structure of the organism through which they pass, so will the same external impressions effloresce into wholly different mental *experiences*, according to the intellectual nature of the being who receives them.

It will hardly escape, moreover, the observation of any acute analyst, that the sensuous impression we actually receive on the bodily organ cannot be by any means a complete prototype of the perception which follows it. A very small portion of the properties perceived are actually *given* in the physical affection. The impression, for instance, by which we become cognisant of solid figures is made on a perfectly flat surface, so that here the mind has to *complete* what is only imperfectly indicated to it from without. The organic affection, in fact, acts only as a *suggestion*, which excites the mind to an independent intellectual operation of its own, but it can never bring with it any complete pictorial counterpart of the subsequent mental phenomenon.*

The perceptive mind must indeed take cognisance of the physical stimulus, and start from it; in place, however, of merely *receiving* and propagating it, it converts it at once into a new mental phenomenon, and this *mental* phenomenon, coming as it does from a soul originally constituted in most perfect harmony with nature, is far more true to the entire objective reality opposed to it than any material impressions could possibly be. All our perceptive experience, in fact, is idealized from *fragmentary* impressions made upon the bodily organs, and those impressions could never come at all out of the sphere of *existence* into that of *thought*, except as thus transformed and assimilated by the thinking mind.

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* "There is not the slightest reason," says Mr. Mill, "for believing, that what we call the *sensible qualities* of the object are a type of anything inherent in itself, or bear any affinity to its own nature. A cause does not, as such, resemble its effects; an east wind is not like the feeling of cold, nor is heat like the steam of boiling water: why, then, should matter resemble our sensations?"—*Mill's Logic*, vol. i., p. 80.

Thus, then, on merely psychological grounds, we may conclude against the theory of representationalism, there being no assignable correspondency between the physical process in perception and the mental result. Externally, there is an appropriate impulse; internally, there is a direct perception of truth. Of any intermediate *representation*, whether physical or mental, we know nothing. The result, as far as regards the nature of perception, is this, *that our 'immediate experiences of the world without are mental phenomena which arise out of the direct conflict of mind and nature; resulting, therefore, neither from the mere operations of the one nor the mere impressions of the other, but from a combined and harmonious action of both.*

To make this position more obvious, we shall adduce a few familiar examples. First of all let us take the perceptions of heat and cold. An object is applied to some portion of the surface of our body, and we call it hot; another is applied, and we call it cold. A moment's reflection shows us that heat and cold are simply affections which we experience, and that there is nothing similar to them existing in the object itself. That there is a certain state of things *externally* which tends to expand, dissolve, consume, or stiffen material objects, is true, and the intensity of this state can be measured by the thermometer; but the degrees on the thermometer are no representation and no measure of our perceptions of cold and heat in a body exterior to us. Those perceptions are dependent entirely upon the *conflict* between our organic condition (both mental and bodily) and the secret unknown powers of nature, so that heat and cold, strictly speaking, only exist by means of the sentient being that experiences them.

If we take the phenomena of taste and smell, we shall come of necessity to the same conclusion. The particles or properties which affect the palate or reach the olfactory nerve, are, apart from ourselves, mere chemical agencies, by which one force in nature acts or reacts upon another. Tastes and scents do not exist in them apart from the counter operation of our own mental and bodily constitution. Take away the percipient mind, and all the enjoyments of the feast, all the fragrance of the flowers, and the whole of the associations which they embody, vanish as with a single and magic stroke.

With sound the case stands precisely the same. Externally to ourselves there are movements and vibrations in the atmosphere, but there is no *sound* until those movements affect the living ear. The whole world of tone—the grandest harmony, the softest melody, the living voices of nature—all *exist not* except as we co-operate, each one individually, in their production, nor can their characteristics be for a moment separated from the whole constitution of those who realize them. The perceptions of tone and harmony, indeed, we know vary indefinitely, according to the temperament of different individuals, and therefore can have no common type or representation out of ourselves.

In the perceptions, connected with the sense of touch, we do not at first sight so clearly discern the agency of our own percipient minds. And yet here, too, there is nothing in the outward object that at all resembles the inward phenomenon. The prick of a pin or the wound of a knife experienced by the mind has no likeness to the instrument with which it is effected, nor can an object of any given shape when pressed upon the surface of the body convey to us *of itself* any idea of that shape whatever. It is only, in fact, by a very complex process of mind that we can learn to identify a given bodily impression with the form of the external object which produced it.

It is in the case of sight, however, as being the most objective of all the senses, that we have the greatest difficulty in separating the outward object and the bodily impression from the mental results; the more so as we find by actual experience that an image of things as we see them is actually thrown upon the retina at the back of the eye. There is here, however, a perilous distance for the materialist to travel between the retina and the living soul. The eye does not see of itself, neither if the optic nerve be severed can any visual perception reach the mind. How, then, we may ask, can this image on the retina travel along the nerve and impress the brain with its own form and hue?

The moment we get beyond the mere *mechanism* of the case our power of tracing the image is lost, and we can only detect at the other, or spiritual end of the process, a mental phenomenon, differing as widely as possible from the mere material substance without.

This difference may be made obvious enough by considering the phenomena of colour. Strange as it appears to *common sense*, yet science assures us that there is no such thing as colour inherent in external objects. There is a given system of vibrations undulating through the universe which, amongst other things, affect the human organism, and enable it to create the phenomenon we term light. Thus while the exciting cause of light exists apart from the mind, that which we mean when we speak of the *light itself* does not. Now colour, as is well known, is simply a mode or peculiar determination of light—a reflection to the eye of some particular pencil of its rays. It is a phenomenon, therefore, which originates, as all light does, in the entire vitalized human organism; so that without the eye, and the soul behind it, the universe would be all dark and dreary—not a tint nor a hue there, not a smile on the face of nature, nor a shade of beauty on the summer's landscape.

In all these cases alike we have no apparatus of representationalism between the world, as it is, *per se*, and the percipient mind, but simply a system of impulses, first conveyed to the brain, and then *interpreted* there, by the soul. These impulses are, as it were, a divinely constituted language of inward signs, which the soul has to learn and to read;—but it were vain to say that that *interpretation* must be identical with the physical impression made upon the body. It is an interpretation which, in fact, reaches *infinitely further*, and which brings us much more closely into connexion with truth, *as truth must exist to us in this world*, than any mechanical impression, even were it traced up to the very soul, could ever accomplish.*

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* Hemsterhuis long ago affirmed the truth of this view of the case. "All our perceptions of objects," he writes, "are the result of *relations*, which exist between us, and the objects, and every thing which connects us with the objects. Thus between us and visible objects there are the light, the eyes, and the nervous process. If we put for the object itself the number 4, for the whole of what lie between us and the object, the number 3, and for the *perception* the number 12,—then we cannot say that 12 = 4; but yet if 4 were not 4, then 4 × 3 would not be 12. The perception (= 12,) therefore, is not the pure representation of the number 4, which stands for the *object*, nor of the number 3, which stands for the whole mediating apparatus—nor for the process of recipiency,—it is simply the perception itself = 12. If I consider a sphere, the external object, together with all which mediates between me and it, gives me the perception which I term a *sphere*. If I consider a pillar, then, in like manner, the external object, together with all which stands between me and it, gives me the perception which I call *a pillar*. As, however, all which stands between me and the sphere, is the same as that which stands between me and the pillar, so I must conclude that the difference which I perceive between the one and the other must be in the objects themselves.—*Hemsterhuis's Sophyle*, as quoted by Jacobi, Werke ii., 171.

This view of the nature of perception will be confirmed, if we consider those cases which are usually termed *acquired* perceptions. It was long thought, that we were able to see distance, form, size, &c., by an immediate transmission of the perceived object to the nerves and brain. Bishop Berkeley first laid the foundation for a more correct theory on these matters, by showing that the mind simply receives certain partial intimations, and *acquires* the power of interpreting them by use and experience. In these cases of so-called acquired perceptions, we simply possess an unusually clear exhibition of the process, in which *all* our perceptions originate. Strictly speaking, every perception we possess is an acquired perception. The mind exists, first, simply upon its sensational stage of development. Gradually, through the impulse exerted by all the variety of subjective impressions, it struggles out of itself, and sees both self and nature in clear opposition. At first, however, it cannot interpret all these impressions in relation to its newly-acquired world-consciousness. This is the work of time and experience. Trace after trace has to be laid up in the mind; many of them to be compared together; the intimations of one sense to be used in correction or elucidation of another;—and thus gradually the sign-language of sensation, has to attain the *meaning* which we denote by the term *perception*.* The cases usually put down as acquired perceptions, are no exception to the general rule; they are simply unusually complex characters, which require more time and experience than the rest fully to unravel.*

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* Numerous cases illustrative of this are on record. Thus Cheselden's patient, who acquired his sight suddenly by an operation, was totally unable to interpret the signs which

It is not to be imagined, however, that our perceptions are in any case inferences which are consciously drawn from acknowledged data. The inferences, if we may term them so, are purely *intuitive,*—we draw them without being conscious of doing so, by the very intellectual necessity of our existence, and without any reflective idea of the data on which we proceed. All this again illustrates the true nature of perception, as being the operation of *the whole mind* upon its lower sphere of action. The reason is there, with all its essential characteristics, but is there only *implicitly*. With an *intuitive* glance the mind looks into the relations, in which we stand to the universe around us, feels them, and knows them; but it is not yet able to give its knowledge any formal or abstract expression. The materials, however, exist already in the primary intuition, which are destined afterwards to grow up into a clear

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reached him through the eye correctly. Though he could distinguish the cat from the dog *perfectly* by touch (having *acquired* the power to do so), he was quite unable to tell which was which by the eye, until he had established the proper associations, and learned to interpret the new characters.

* The invention of the stereoscope by Prof. Wheatstone has thrown considerable light upon the process by which we acquire the power of seeing solid objects *as such*.

intellectual and scientific knowledge of the properties of the vast universe in which we are placed.

The only further remark we have to make in illustration of the nature of perception is, to point out the law of its relationship with sensation, properly so called. The whole mind, as we have seen, is present in both. In sensation its attention is directed to its own subjective affection or feeling, as produced by the bodily state; in perception its attention passes from the affection itself to the interpretation of it, as being an expression of some outwardly existing fact. Between these two poles there may lie an infinite number of intermediate states, in which the mind is balanced between the inward affection and outward intuition. The law of this relationship is thus stated by Sir W. Hamilton:—"That above a certain point the stronger the sensation the weaker the perception, and the distincter the perception the less obtrusive the sensation."* That is, in other words, the more we attend to the affection, the less we are endeavouring to interpret it—and the more we are endeavouring to interpret any affection the less conscious we become of the mere sensational characteristics of the feeling itself. As, however, the sign and the interpreter must have an intelligible connexion; as the impulses, which come from without, must find an organism preconstructed for their service, and as that organism itself, when thus stimulated, must stand in the same telegraphic relationship to the mind,—so we must, in fine, refer the whole *process* and the whole *certitude* of our intuitive perceptions to that pre-established harmony between the soul and nature, which has adapted them to each other, and enabled us to read from our own inward feelings, the laws and operations of the world without.

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* "Notes on Reid," p. 880.

II.—ON THE PSYCHOLOGICAL IDENTITY BETWEEN PERCEPTION AND INTUITION GENERALLY.

Having got so far in our analysis we may now proceed to consider, *to what extent* our immediate contact with nature and the external universe generally is capable of exciting the soul to a direct and intuitive perception of truth. By a careful investigation of the question, we shall find that the perception of the *physical* qualities of the world around us, is a complete psychological type of all other intuitive processes, and that the mind is really on the same stage of its intellectual development, when it is receiving its primary notions of such qualities, as when it is drinking in its first intuitions of beauty, or of harmony, or of any other elements of human knowledge.

To show this let it first of all be remembered, that it is not substance itself of which we are directly cognisant in the act of perception, but simply its properties. This is a truth assented to by every school of philosophy, and one which we may grant without at all involving ourselves in the subtleties of idealism. The following passage from a tract by H. Wedgwood, Esq., printed among the Cambridge Philosophical Transactions, gives a clear common-sense view of the question, as held by thinking men of every class:—"It is hardly necessary to premise that we have no knowledge of body by any of the five senses. What I immediately perceive by sense is the sensible phenomenon itself, and not the bodily substance with which it may be locally connected, either as the proximate cause of the sensation, or as the organ by or in which it is felt. When I suffer tooth-ache, or when a pin is run into me unawares, the thing of which I have actual apprehension is the pain I suffer, not the bodily substance of the pin and the tooth. When a gun goes off before my windows, what I hear, or perceive by the ear, is neither the bodily gun, nor the vibrations of the air, by which the material action is conveyed to my ear, but the sound itself. When I gaze upon the stars, the visible image before my eyes affords a substantive object of contemplation, apart from all speculation as to the bodily nature of the object seen. Thus the exercise of the senses displays to us five elementary modes of *being*, logically unconnected with the notion of bodily substance—five kinds of being upon which we may think independent of all intellectual reference to a bodily support."

What we are immediately conscious of in perception, then, is the *Qualities* of the material world around us, such as extension, size, figure, resistance, motion, &c.—all the phenomena, in a word, which go to make up the whole sum of our direct experience of *natural objects*. *Perception*, accordingly, may be described as that particular attitude of mind, which adapts it especially for the appreciation of *physical qualities*; those qualities being the real elements which constitute to us the actual phenomena of the external world.

Now what I wish to be especially noted is this: that the appreciation of these particular qualities is as much an *intellectual* exercise of mind as is that of any others.

A portion of the universe is brought into contact with us through the senses, and the intellectual faculty immediately apprehends its *physical* properties. But this assuredly is not all. The very same intelligence can apprehend other facts and relations as well, and that with precisely similar directness. If the appropriate objects are presented to the eye, the mind apprehends *beauty* as readily as it does extension; if the proper conditions are presented to the ear, we appreciate harmony just as directly as we do time or space.

The fact that one department of truth may require generally *more mental development* than another, ere the intuitions become clearly apparent, does not alter the fundamental character of the knowledge itself. In all essential points the psychological features remain precisely the same, though a greater or a less amount of mental experience and culture be required to develop them.

The real object of intuition, be it observed, in the one case is no more *material* than in the other; the mental power which appreciates form, force, motion, &c., as objects of thought, is as distinctly of an intellectual character, as that which appreciates beauty or harmony. The mind, again, as a whole, is in the same altitude of direct apprehension in the one instance as it is in the other; while *variation* of capacity in the power of appreciating physical qualities, such as space, size, distance, &c., is as plainly marked in different individuals, as the power of distinguishing those which belong to other departments.

Moreover, trace the elements of knowledge which come to us through these respective avenues up to their higher intellectual forms, and the one does not give us a less *rational* set of ideas than the other. The elements involved in our *higher* intuitions (as they are ordinarily regarded), give us, when intellectualized, the rational laws of harmony, beauty, moral science, or natural theology; in the same way the elements involved in what is termed perception, such as figure, extension, motion, &c., when translated into the higher language of the intellect, come forth as the most abstract truths of mathematics and physics.

A question might be here raised in the minds of some, whether the fact of the lower animals "*per-*

ceiving" objects as distinctly as man, does not prove the non-intellectual nature of perception, and remove it altogether from any direct identity with those other regions of thought which we have now placed on the same scale with it. Such an objection, I imagine, could only arise from an imperfect analysis of the elements respectively involved in sensation and perception. That the lower animals possess everything included in the *organic element* of sensation as perfectly as man himself, may be readily admitted. But the instant we get beyond the *nervous impulse itself*, a vast difference becomes observable in the two cases.

In the one case, the organic affection appeals to and excites simply the *brute faculty*; in the other, it excites the *human faculty*. The difference between the two, in the case of perception, lies here: that while the brute perceives objects, and acts in reference to them only *instinctively*, either for the satisfaction of its appetites, or for self-preservation; a conscious separation is instantly effected by the *human* faculty between the subject and the object. In this separation lies the first distinctive act of *human intelligence*, an act to which there soon succeeds an apprehension of *qualities* in the external object, totally different from any intelligence that can take place in the case of the lower animals.

The animal does not think within itself, I am a dog, or a horse, and that is a hare, or a corn-field; it is simply impelled *by the force of instinct* towards the object, without any apprehension of its own personality, as distinct from the thing presented to it. On the other hand, the child, or the savage, without the least culture whatever, *consciously* separates self from the objective world in the very first distinct act of *perception;* and it is exactly here, in this very act, that the *intellectual* quality of perception is first manifested. In the separation of subject and object, all thought is primarily cradled; and wherever that distinction takes place, everything else peculiar to the human intellect is able to follow.

Having now got a definite notion of what is meant by the intuitive perception of the properties of matter, we can go one step further, and give an equally definite idea of intuition within the other spheres of human knowledge. The peculiarity of intelligence on this particular stage of its development is, that it approaches very near to the character of a *sensibility.* In perception proper, we have a state of mind raised only one remove above mere sensation; and in many instances it is so like the sensation as to be well nigh *convertible* with it. Now, in looking out upon the world, with the first fresh gaze of nature, it is not merely the *material qualities* which strike us. The young mind, long before it comes to the use of words, or has received the smallest portion of direct instruction, is seen drinking in *all possible kinds* of impressions from the world without. It is not only experimenting upon form and colour, distance, and force, but is also gazing with an undefined sense of wonder and admiration at the beauty which surrounds it on every hand. No one can say at what exact moment the eye of the child ceases to convey a mere nervous impulse, like that of the animal, and when it awakens in the soul the first glimpse of the sublime and beautiful. All those who have shown a remarkable appreciation of form and beauty date their first impressions from a period lying far behind the existence of definite ideas, or verbal instruction. The germs of all their æsthetic impressions lay, from the first, potentially involved in the interior nature of the soul, *i. e.*, in its harmony with the world of beauty without; and they manifested themselves, first of all, as a spontaneous feeling or instinct, which was from the earliest dawn of reason awakened by the presentation of the phenomena which correspond objectively with it in the universe.

No one can doubt, but that the creation around us has been formed according to the most perfect laws of form and beauty, or that the human mind is so constructed that the ideas of beauty must, under the highest culture, correspond with the teachings of nature. The mere presentation of the beautiful without us, we should therefore conclude, is as well calculated to awaken the *intuition* of it, as our ordinary contact with material objects awakens the perceptions of physical qualities.

And this agrees perfectly with the facts of the case. We contemplate an exquisite flower, or a summer's landscape, or the starry heavens,—and what do we there PERCEIVE? Not merely physical qualities,—not merely shape, size, and colour; we perceive *far more* than this. An indefinable *sense of beauty* steals over the soul, which, as a mental phenomenon, is too real to be denied, and which, we find, on reflection, to involve the dim realization of some of the deepest thoughts and realities of existence.

The fact that the same amount of capacity does not exist in every individual, for appreciating form and beauty, is in no respect contrary to their intuitive character. All perception and intuition, as we before showed, is really *acquired* by a spontaneous mental process, acquired by some, too, far more readily and rapidly than by others. In Homer, Raphael, Shakespeare, Goethe, how wondrous were the glimpses opened by this inward faculty; how true the ideas which the outward world reflected into their inmost souls! Such instances, however rare, yet exhibit to us in a magnified form, the reality of the intuitive powers, as regard the appreciation of order and beauty. They show us, that the mind, by an immediate apprehension, may bring within the circle of its view a whole world of properties, different from those of mere matter, and yet as real and as permanent, objectively considered, as any other ideas which God has embodied visibly in nature, or breathed into the human soul.

The same conclusions can be drawn, in respect to the perception of *harmony*. It was not instruction, or verbal inculcation, or even culture, which taught the infant

Mozart the wonders of the world of *tone*. Long ere he could understand a word in explanation, long ere the subject had even presented itself to him at all in the form of *thought*, his finely constituted nature had drunk in all the intuitions of harmony, and his physical powers, responsive to the bidding of the soul within, could *reproduce* them. The harmony itself was first presented through the *ear* to the mind; but then the mind sympathetically adjusted, and containing already the springs of music within, seized upon the *truth itself*, with a direct and intuitive apprehension. Between such an intuition of harmony, and the ordinary phenomena of perception, we cannot reasonably draw any psychological distinction. They arise indeed from a different form of sensibility, just as the impressions of *hearing* and *feeling* do, but they stand precisely upon the same platform of mental development.

If we turn next to the phenomena of the *moral sentiments*, where perhaps the present theory may be thought less applicable, we shall find that they, too, appear, like all the rest, in the same rudimentary form previous to the distinct development of moral ideas. Moral *life* is a thing which cannot be imparted by words alone; neither is it a compound of ideas and associations. The very terms by which such ideas must be conveyed, or such associations established, all presuppose the sentiment in question, without which, indeed, they could never possess either a force or a meaning.

If we appeal to experience we find, that an instinctive *apprehension* of right or wrong, as attached to certain actions, precedes in the child, any distinct *comprehension* of the language, by which we convey moral truths. Moreover, the power and the purity of moral feeling not unfrequently exist, even to the highest degree, amongst those, who never made the question of morals in any way the object of direct thought, and may, perchance, be unconscious of the treasure they possess in their own bosoms. Too often, indeed, the self-conscious and reflective knowledge of good and evil implies the *loss* of inward innocence, and the tarnishing of the moral nature by sin. It is only by the experience of *defect* that we realize in thought, the nature of moral perfection, or note articulately the inward voice of conscience.

And how deep the elements of truth, which lie potentially in those primary moral feelings! What are all the current and artificial notions of virtue in point of richness and reality, to the intuitions of the simplest soul, whose moral nature has not been blighted by physical degeneration, or by conventional influences? Nay, we well know, that without being perpetually enlightened and refreshed *from* such inward experiences, all the moral doctrines we may propound, or systems of ethics we may construct, become hollow forms of the understanding, as useless for good as they are powerless against evil. All this manifestly tends to show us, that our moral life takes primarily the form of a *direct intuition,* in which we become conscious, by contact with others, of a peculiar sphere of relations, that exists between that whole universe of *minds,* of which we each form one complete unit. The fact that our fundamental moral sentiment requires to be guided and expanded by experience and culture, only shows it to be so much the more in harmony with our whole intuitive nature.

Closely connected with the moral are the *religious* intuitions of the soul. These are developed, more or less distinctly, amongst the earliest of our human sentiments, in that form of awe, veneration, and reverence, which is inspired by objects of sublimity, grandeur, vastness and mystery. In process of time other elements, first the mental and then the moral, are joined to this primary intuition, until, at length, we reach the elevation of an intelligent, voluntary, and cheerful dependance upon an infinite and all-perfect being.

These religious intuitions, like all the rest, though they may be directed and expanded, cannot be *created* by theoretic ideas. This would be to reverse the whole order of man's mental development, and stand at the same time in plain contradiction to that uniform body of experience, which shows religious *life* to be at once the forerunner, and the necessary condition of an articulate faith. The realization of the Infinite—the divine—the holy and perfect *One,* in the depths of our self-consciousness (*i.e.,* in the religion of experience) is prior to all *theory;* and, when attained, is a wholly different thing from the view we take of God intellectually in a theological system. In the latter, we see simply the understanding busy with a series of abstract ideas; in the former, we have a realization of the Infinite in the natural and truthful mirror of the religious feelings.

To adduce any further examples, as illustrative of the nature of intuition, is unnecessary; what we have already brought forward may be sufficient to make manifest the general truth,—that *in all departments of human knowledge,* the primary elements must come alike through the intuitive process, and present themselves as springing from an *intellectual sensibility,* previously to their being clothed in the forms and symbols of the understanding. And this agrees perfectly with the general results of physiology, as shown in the preceding chapter. Each portion of the nervous system, as we there saw, has its proper function in relation to the manifestations of mind and intelligence. The peculiarity of each progressive type of the nervous system in the ascending scale of organic life, is to give a higher form of mental sensibility, and thus to bring a larger amount of material over from the real world of existence into the ideal world of thought. There are influences in nature, for example, experienced by the higher vertebrata, to which the lower orders of animated life are wholly insensible: and so also are there still loftier influences accessible to man, of which the mere animal is quite unconscious. The animal, for example, manifestly possesses an intuitive sense of space, time, form, and distance; he has the rudiments of well-nigh all our perceptive knowledge, although, as we before saw, he holds it in a merely instinctive manner. In man, however, a more finely attuned nervous organization is present, and one which is sympathetic with still higher influences. To him nature is not only a system of shapes, shades, and resistances, it speaks a higher language—embodies loftier ideas,—and breathes into the soul diviner sentiments.

"With this higher organization," says Maximilian Jacobi,* "the capability is given to perceive, in the objects of the universe opened to us through the senses, a rhythm, a harmony, a form, and a beauty; and not only to perceive, but to participate in them. This capability can consist in no other than an originally implanted sense for the æsthetic ideal, which we possess, as also we do that for the moral ideal, as a direct gift from God. In this self-created idealization of nature, man comprehends the surrounding world with its ever fresh illustrations, enchained to it by a love and longing, ever new and ever young. Thus he drinks in once and again the morning dawn flaming over the new-awakened earth, and thus the evening sky, that stills the inward storm of his heart; and so, likewise, does he comprehend the starry arch above him that awakens his deepest senses, and so, too, all the contrasts of the landscape, just as mountain and valley field and wood, and the stream with its ever-changing hues, present them."*

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* "Naturleben und Geistesleben," p. 21. (Leipzig, 1851.)

Having now gained some idea of the general nature and scope of intuition, we shall combine the results in a brief series of remarks, in the next section.

III.—THE ESSENTIAL CHARACTERISTICS OF OUR INTUITIVE INTELLIGENCE.

Let us revert, once more, to the law of organic development, already explained. (Chap. I.) According to this law the human mind is designed to present a succession of stages, beginning with the first impulse of the senses, and then rising in the scale of self-consciousness and intellectual freedom up to the highest reason and the highest will. The nature and varieties of sensation we have already analyzed; and now, having drawn the imaginary line that separates this from the next intellectual process, we have to consider, what are the characteristics which, according to our theory on the one hand, and to the actual facts of the case on the other, most obviously attach themselves to the intuitive form of the human intelligence. The following observations will comprehend what is most essential to be retained as forming the distinctive features of this particular form of our mental activity.

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* The same view respecting the identity of perception and intuition generally is thus put by Mr. Dove:—"The grand question of philosophy is, whether the material world furnishes only a summation of sensual impressions, or whether it is really and truly a revelation? That is, can we or can we not *see* through material phenomena into a region which is not appreciable by sense? To put the question in a clear light, we ask—Is the material world a final object, which conveys only sensual impressions,—or is the material world a book that affords sensual impression (the letters, figures, pages, &c.), and which, *over and above that sensual impression*, conveys an *intellectual meaning intended by the Author?* A dog looking at a book sees the same that a man sees, but he understands not the intellectual meaning intended to be conveyed to the reader by the aid of the symbols. Is, then, the universe an object final or *a book?* This is the great question of philosophy? If we admit it to be a book, as St. Paul does (Rom. i. 20), we thereby admit science to be truly *a revelation*."—*Theory of Hum. Prog.*, p. 252.

1. Intelligence as developed on this stage will not, as is the case in sensation, be a *mere response* to some physical impression; in other words, it will necessarily involve a certain additional amount of *independent* mental activity.*

2. As the lowest of the *purely intellectual states*, it will exhibit, amongst them all, the least amount of

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* "In perception proper there is a higher energy of intelligence than in sensation proper. For though the latter be the apprehension of an affection of the Ego, and therefore in a certain sort the apprehension of an immaterial quality, still it is only the apprehension of the fact of an *organic passion;* whereas the former, though supposing sensation as its con-

reflection, the least accompaniment of self-consciousness, the least element of voluntary control, or personal effort.

3. From this it follows, that it will be the intellectual state of all others most allied to *feeling*, that which lies nearest to the primary mental impression, that with which the abstract understanding has least to do, and in which the spontaneous unreflective activity of the soul is most energetic.

4. Knowledge, as it exists on this stage, though less distinct and defined than on any other, yet remains just so much the more *direct* in its nature, in proportion as it is less intermingled with the doubtful elements of human personality and artificial culture.

This remark will be verified by the following consideration. Before human knowledge comes into a definite form it must have passed through the process of abstraction. To do this it must have become embodied in words—have taken the peculiar hue of some one of the languages of mankind, and have been mingled up with a given amount both of individual and of national peculiarity. On the other hand, knowledge, as it springs up fresh from the intuitions, and unbiassed by any artificial influence whatever, is pure and direct, presenting to us the most unbroken

dition, and though only the apprehension of the attributes of a material Non-ego, is, however, itself *without corporeal passion*, and, at the same time, the recognition, not only of a *fact*, but of *relations*."—*Hamilton's Reid*, p. 880.

reflection of the reality of things from the mirror of our interior nature.

5. Distinguishing the two elements of *matter* and *form*, we shall have in the knowledge belonging to this peculiar stage of our mental development a *maximum* of the former and a *minimum* of the latter. That is, there will be in it the greatest amount of direct apprehension in reference to the concrete object, and the least amount of logical comprehension.

6. From the above remarks, it will be easily understood, that the knowledge we have considered under the form of intuition, though, as we have said, the very reverse of being, logically speaking, clear and well defined, yet is of all other modes of intelligence the most *vivid* in its effects on the soul, and the most *inexhaustible* in its resources. The insight it gives into the constitution of things around us goes down to the very depths of our being. We read here the truth of things, not in signs, or formulæ, or any other abstract representation, but simply in the hidden recesses of our own self-consciousness. These intuitions, accordingly, form the spiritual materials out of which all our subsequent ideas and notions are elaborated — materials which can never be wholly exhausted or *used up* by the subsequent powers of reflection. "Intuitive feeling," says Fischer, "is at once the most inward and the most vivid kind of intelligence, so that its depth and fulness can never

be sounded by thought, but contain the germ of an infinite development of life and knowledge."*

7. Another great peculiarity of the knowledge which is involved in this immediate experience of the soul lies here:—that as it is associated indissolubly with our inward or subjective feelings, it cannot be expressed in language, or adequately conveyed by any possible system of signs to another mind. The sole condition of intercommunication and sympathy, within this region, lies in the possibility of other minds reaching the same state of inward development as ourselves; so that they may see the same truth which we do, reflected in their own interior consciousness. If we look along the whole range of our intuitions, we find them all alike *unutterable*. They may be, indeed, intensely *felt*; their inward existence, too, may be manifested by a thousand significant indications; nay, they can create an impulse and a sympathy in others, by the very light they kindle in the features, and the power they infuse into the actions of those who intensely realize them; but they cannot yet be *articulately expressed*. Before words can prove of any avail, another transformation in the whole form of our knowledge must take place, which we shall have to investigate in the next chapter.

8. To some it may seem strange that we should make the realization of such a depth and richness of

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* "Grundzüge eines Systems der Philosophie." Vol. ii., p. 185.

truth coincident with so early a period of our mental development. To explain this difficulty, we offer the following observations:—

(*a.*) That although the *material* of knowledge is so richly supplied to us within the sphere of intuition, yet its *form* is proportionally immature. Experience shows us that the sensibilities even of the child are extremely acute, and that they lay hold on the elementary germs of almost every generic branch of human thought. Were we to represent this sphere of our mental activity, as bringing our knowledge, on any of the questions above stated, to clearness of thought and expression, we should be manifestly wrong; but it is equally true, on the other hand, that it deals largely with those primary and fundamental *elements* of truth, which slumber from the first within the soul, and arise out of the very relation in which it stands to the universe at large.

(*b.*) It must be remembered, that the intuitive sphere, though it appears so early in our mental development, yet exists as a mode of mental activity through every subsequent period. Hence, as the mind itself becomes more mature, more perfect, and more rich in experience, the intuitions become proportionally developed, and inclose a greater breadth of subjective idea within their circle.* But, still, the same law equally holds good, that every branch of our knowledge passes through the intuitive form before it can become realized either in a verbal or a logical expression. Even if we learn the expressions and the forms of truth *by heart* previous to any inward realization of it, still we must go back to the sphere of intuition, and grasp it *there*, before the words and the propositions possess to us either a spirit or a life.

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* On the culture and growth of the intuitive powers, there are some valuable remarks in Professor Whewell's "Letter to the Author of the 'Prolegomena Logica,'" p. 10, *et seq.*

(*c*.) We must not forget that the intuitive powers are all open to the influence of human culture, historically considered. It is sometimes argued that certain facts cannot be known intuitively, because they are only found in connexion with a given degree of human cultivation, and in cases where men are brought into contact with ready-formed and verbally-inculcated ideas. We have already shown, however, that the intuitive powers *universally* grow up under the guidance of experience and culture, as well as all the rest of our faculties; so that in proportion as the entire man arrives at a higher development, his intuitions will become at once more vivid in their character, and more wide in their range.

It is in this intuitional culture that *civilization* itself mainly consists. For, if we compare the civilization of one of the higher types of mankind, such as the *Greek*, with one of the lower, like the Hottentot, we cannot fail to see a natural *sensibility* of mind in the one, which, independently of all external advantages, raises it incomparably higher in the scale of history than anything to which the other has hitherto attained. When the intuitive faculties, indeed, are strongly developed, there is no limit we can place to the light which they will spontaneously cast over every subject of human thought. There is no reason, *per se*, why every man in an advanced state of cultivation should not be as sensitive to harmony as was Mozart, as intuitive of beauty as Raphael, as readily apprehensive of poetic imagery as Shakespeare, as instinct with nature as Goethe, as open to moral and religious influences as Paul and John.

9. This leads us to our last remark, which combines, in short, the matter of all the rest. *Intuition* (as we conclude from the whole foregoing analysis) *is that precise attitude of the soul, in which it sees the various relationships of the universe presented to it spontaneously as an immediate objective reality.* The appreciation of truth, accordingly, which is involved in it, must arise from that primæval harmony which exists between the universe itself, and our own inward spiritual nature.*

IV.—ON THE PHRASEOLOGY EMPLOYED IN THIS DEPARTMENT OF PSYCHOLOGY.

As a large amount of misunderstanding constantly arises in all questions relating to mental phenomena, from the indefiniteness of words, and the previous notions frequently attached to them, it is important, in conclusion, to offer a few remarks in explanation of the terms above employed.

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* See, again, Fischer's "Grundzüge des Syst. der Phil.," vol. ii., p. 174.

In using the word *intuition* to signify the primary mode of intelligence just explained, we are simply returning to the phraseology which has been sanctioned by the highest authorities in the history of philosophy. The schoolmen in the middle ages, following the suggestions of Aristotle, and viewing the whole question on its *logical* side, divided all human knowledge into two species, "*cognitio intuitiva,*" and "*cognitio abstractiva.*" By intuitive knowledge they signified that which we gain by an immediate presentation of the *real individual object;* by abstractive, that which we gain and hold through the medium of a general term: the one being, in more modern language, a *perception,* the other a *concept.*

Kant employed the term intuition, or, rather, the German equivalent, *Anschauung,* in its proper scholastic sense; and throughout the whole critical school which followed in his footsteps, we find it strictly used to signify that immediate knowledge which the mind acquires of the properties of an individual object, when such object is brought into direct contact with the human faculties through the external senses.*

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* It should be remarked, however, that this applies to what Kant terms *empirical* intuition; he maintained also the existence of a *pure intuition,* which determines the formal and *à priori* conditions of all our perceptive knowledge.

Modern writers on Logic, in our country, have followed the same phraseology. Thus the author of the "Outline of the Laws of Thought" writes (p. 1):—"The intellect gains a knowledge of things by means of certain representations which they generate within it, when subjected to observation. Such representations are of various kinds, differing in extent, in clearness, in value: some are of *individuals* only, and these are termed *intuitions;* some are gained from intuitions, by an internal process hereafter to be explained, these we call *conceptions.*"

In the ideal controversy, which Reid originated in this country, the term intuition was laid aside, and that of perception (only in a more restricted meaning), took its place. As that controversy turned especially upon the mode in which we come to the knowledge of material objects, the term perception came to be employed as simply correlative to *sensation;* indicating, namely, the intellectual side of the process, by which we gain our knowledge of the external world, and its material properties. Thus it became generally appropriated as the technical expression for this particular phenomenon throughout Europe at large.

A very marked inconvenience arose from this restriction of the term. It became generally imagined, that the exercise of the human intelligence, which is directed to the immediate apprehension of the qualities of external things, forms a distinct and peculiar faculty in itself, totally different from that by which we apprehend, with like directness, the materials of all other departments of truth. The fact that our immediate knowledge of corporeal qualities must rest upon a primary belief, or an intuitive perception, or a primitive harmony between the mind and nature, or some other equivalent expression, has been constantly maintained in all the schools which sprung forth from the "Common Sense" philosophy down to the present day; but it has not been generally seen amongst these schools, that the soul thus brought into contact with the universe, gains not only an intuitive perception of its *corporeal* constitution; but that it grasps in this spontaneous unreflective form the elements of *all* the truths in nature, which matured thought can at any future time develop into a reflective and explicit form.

In Germany, this inconvenience has not existed. The term intuition, and its equivalent *Anschauung*, have there been retained in their broader signification, and thus the true idea has been conserved, even by means of the current phraseology, that it is one and the same mode of intelligence, by which we apprehend, in this primary spontaneous form, all the other, as well as the mere physical facts of the universe around us.

Since, then, the term *perception* has now become naturalized in this country, as applicable simply to *material* qualities, I have continued to employ it in this sense; and have re-introduced the term intuition to signify the same spontaneous form of intelligence in its *universal* application to all human truth. Perception, therefore, will mean intuition, applied simply to the apprehension of *material properties*. Thus the one will be the *genus*, the other the *species*.

The chief difficulty we encounter in determining the proper phraseology for these phenomena, arises from their involving in them so many of the characteristics both of intellect and feeling. This has led some to indicate them by the terms sentiment, feeling, sensibility, emotion; and others by a phraseology running parallel with such words as thought, notion, conception, idea. I have already shown that the terms intelligence and feeling, do not mark *distinct faculties* at all, but only different sides of all the stages of our mental development. Accordingly, when the term *feeling* is employed to designate intuitive phenomena, it must imply feelings of such a nature, that they involve a direct realization and inward experience of truth. If, on the other hand, such phenomena be referred to *thought*, or reason, yet they must be rational, in such wise as to include a spontaneous and *emotive* exercise of the intellect, rather than a voluntary and logical one. Was the immediate perception and appreciation of the laws of harmony, for example, in the infant Mozart, due to the strength of his reason, or the power of a given susceptibility? If we say to the strength of his *reason*, we must evidently employ the term reason as involving much that is contained in the feelings; if we say, to a given sentiment or sensibility, yet it must have been a sensibility which did not exclude but positively *involved* the perception and application of *truth.* So in morals; if we refer a refined moral nature to *reason*, we must use the word altogether in a modified sense, and distinguish, as Kant did, the practical reason from the speculative; if we say, to a moral *feeling*, yet we must not exclude from the function of that feeling the deep appreciation of all that is contained in *moral idea.*

These considerations show us what a field lies open for contending about words and phrases in all subjects relating to our mental operations, while there may possibly be no difference of opinion respecting the phenomena themselves. I have employed the term intuition, as involving neither an intellectual nor an emotional *theory* on the question; but as simply indicating the facts of the case as we find them.

The real facts, I believe, are these: first, that every branch of human knowledge passes through the intuitive before it reaches the reflective form. Secondly, that the intuitive modes of intelligence are more nearly allied to the phenomena of the feelings than those which are more abstract. Thirdly, that there is no actual separation in nature between intelligence, feeling, and will, but that they are, from the first, more or less commingled with each other. Lastly, that for the sake of *analysis* we may consider the intellectual side of every mental operation apart from the emotional and voluntary; and that we are not abusing or twisting the facts of the case, when we employ the term intuition to designate *this intellectual side of our mental activity* on that early stage of its development, when it deals only with objects immediately presented to it from without.

If any one objects to the term *intuition*, let him employ another which he likes better; but no change of phraseology can obliterate the *mental facts* which lie patent all around us, and are verified in the experience of every hour.

CHAPTER V.

THIRD STAGE OF INTELLIGENCE.—INTELLIGENCE AS REPRESENTATION.

> The distinction of immediate and mediate cognition it is of the highest importance to establish, for it is one without which the whole philosophy of knowledge must remain involved in ambiguities. * * * A mediate cognition (inasmuch as the thing known is held up or mirrored to the mind in a vicarious representation) may be called a REPRESENTATIVE cognition.—HAMILTON.

WE have now gone through two stages of mental phenomena, each distinguished by certain well-defined features. In the sensational stage, the mind is least free; it acts, as yet, in immediate response to some physical impulse, and only *prepares* the way for a higher intellectual stage by leading us imperceptibly to the separation of *self* from the whole multiplicity of fleeting impressions, which pass through the consciousness.

This separation once effected, we commence the second, or intuitional stage. Here the soul, though attaining somewhat more of free activity, yet remains under the immediate influence of the external realities which surround it. In all our intuitions, the mind is, as it were, *sunk* in the object of its contemplation. The phenomena of the universe—*i.e.*, its physical qualities, its beauty, its teleological constitution, and its relation to the infinite, all are viewed, not so much as objects of *thought*, as objects of *sentiment* and *feeling*. The thing perceived stands face to face with the percipient mind, and the latter, wholly immersed in its object, exercises hardly any self-conscious activity in the apprehension of it. On this very account intuitive knowledge, though less definite, yet, as we before said, is more *real to truth* than any other; so much so, that we must always recur to it, from time to time, to prevent ourselves while in the pursuit of knowledge from being made the sport of barren abstractions.

For the intellect, however, to become fully developed, it must pass beyond the sphere of intuition; for it is evident, that so long as intelligence takes the form of a mere subjective experience nothing can become, in the logical sense, definitely known or clearly comprehended. Before an object can be distinctly understood, it must first be projected out of ourselves, made to stand altogether apart from our immediate experience, and assume the character of an independent intellectual reality. Until this is the case, all intelligence is, if we may so express it, in a *fluid* state; it comes to no shape, crystallizes into no clear conceptions, but remains wholly identified with the momentary feelings of the thinking subject.

How then, we inquire, can this separation be accomplished? How can we possibly get beyond the sphere of intuition, or disentangle ourselves from the influence of subjective impressions? The answer to this inquiry will introduce us to another stage of mental activity. It will point us to a power of mind by which we are enabled, first, to *recal* our experiences, and then afterwards to build upon them a still higher form of knowledge in the process of our intellectual development. The objects of perception, when thus recalled, belong to a new and an ideal world. They are no longer mere impressions —no longer subjective feelings; they have now become REPRESENTATIVE IDEAS. Our next duty, then, is to enter somewhat closely into the phenomena of human intelligence whilst in *the representative form.*

I.—OF THE MEMORY.

The first phenomenon we shall have to consider as belonging to this stage of intelligence is THE MEMORY. Before entering into the analysis which this term will require, we may take the opportunity of offering one preliminary observation, which it will be important constantly to keep in view. The human mind from its earliest existence comprehends *implicitly,* and that in the very mode of its existence, everything which its interior nature is calculated afterwards to develop. Hence, although there are particular periods in its development, in which each specific form of mental activity comes into *more prominent* operation than the rest, yet the *rudiments* of them all are present from the first, and manifest themselves for a time, in a merely impulsive manner. For example, the earliest instincts contain a certain amount of unconscious *reason* in them, as proved by their effects, although reason, as a complete and explicit fact, does not appear till very late in the mind's organic growth. In short, by a close analysis, we may find on the sphere of *sensation* the analogue of every subsequent mental operation.

This being kept in mind, it will be seen, that to trace the natural history of memory from the first, we must look for its rudiments upon the primary sphere of the mind's activity.

The very earliest sensations we experience, it is well known, find a lodgment in our mental being, which renders them more or less capable of *reproduction.* Every nervous impression to which the mind gives a response leaves in some mysterious way *an inner trace* behind it, which nothing appears afterwards able to obliterate. It is true, that very early impressions do not often return to us *consciously,* and yet it is not difficult to discover, that it is by the *accumulation* of such impressions that the perceptive faculty from a mere power becomes gradually developed into a *great and a universal mental fact.*[*]

This early accumulation, then, of mental traces is the primary and instinctive form of memory. When our *intuitions* are revived, so that we are fully conscious of the affinity between the type and the antitype, then we are said to possess *memory*, properly so called. And we shall see hereafter, that the process of recalling *ideas* that are fully formed and expressed in language is designated by another term still, namely, *recollection.*

To trace the exact process included under the term memory, let us consider what has already preceded it. Sensations in infinite variety have been experienced; a self-consciousness and a world-consciousness have dawned upon us; and the soul, by virtue of its intuitive powers, has begun to see and appreciate truth in the depth of its own inward sentiments. These intuitions, however, are in each case but the passing realizations of the moment — the actual *experience* with which each instant is filled, and nothing more. With the vagueness attending all knowledge based upon this foundation we in due time become instinctively dissatisfied. We want to see facts in a brighter light—to scan the individual objects of perception more fully and perfectly. A fresh mental activity accordingly soon arises out of this wish, which we term *attention.*

[*] See Beneke's "Psychologie," chap. iii. Von der Reproduction der Spuren.

By attention, we mean simply the mind's effort to grasp any given intuition with the utmost degree of clearness, to *fix* it within us, to stamp it upon the soul as deeply and indelibly as possible. We have already shown that the mind is active to a certain extent during the whole process of intuition—that it meets the sensational impression, idealizes it, and gives it the primary form of *knowledge*. Here, however, a higher degree of activity comes into play. The mind not only perceives as *truth* what the objective world presents as *reality*, it does more. It seizes upon the prominent features in each perception, throws them out into bold relief, and thus *creates*, by its own inherent power, a new and peculiar aspect of the entire phenomenon. It is this peculiar act of attention which, as we shall now see, prepares the way for the process of reproduction.

The more free and active the mind is in performing any given operation, the more permanent, as a general rule, is the *result*. A mere sensation, however vivid at the moment, soon passes away, so that it can never be recalled with anything at all approaching its original intensity. An intuition can be more fully reproduced, but not perfectly so. It is but a cold and faded shadow which the soul retains even of its brightest intuitive moments. When, however, the mind has *voluntarily* fixed its attention upon any object—when it has singled out certain prominent points, and has thus constructed for itself a new representation of the whole phenomenon, then, although the object may pass away, the *idea* of it so constructed will be capable of almost perfect reviviscence.

The truth of this may be tested by daily observation. After gazing upon any object of beauty—a landscape, a picture, a countenance—what is it that we can recal? Not the precise tints—not the lights and shadows of the scene—not those elements of it which approach most to a purely sensational character. What we recal is *the whole idea* in the precise form in which it seized the attention. The prominent outlines of this idea remain in the mind almost as welldefined as ever; the rest of it glides back into unconscious oblivion. *Memory, accordingly, is nothing more than the* REPETITION, *apart from the real phenomenon, of the same process of attention, which the mind has already performed in its presence.* If it be originally performed with great intensity, and under the stimulus of strong feeling, or if it have been repeated a great number of times, the reproduction will be so much the easier. The reason why such reproduction can take place *at all* is, because the process of attention, which necessarily precedes memory, is an act of the mind's own intellectual power; *and any act which it can do once under the stimulus of the real object, it finds little difficulty in repeating, even when that object is no longer present.*[*]

[*] See Erdmann's "Grundriss der Psychologie," sec. 98. Eigentlich liegt in der Erinnerung eine Gestalt der Intelligenz verborgen, welche ihren Gegenstand bildet (oder formt),

To say, therefore, that memory is a renewed sensation, or a prolonged sensation, or any kind of reproduction of a sensation, is wholly incorrect. We can neither prolong nor revive our sensations. They come and they go; they fill up the experience of a given moment, and then disappear for ever. *What we reproduce is simply the product of the mind's own free activity.* If any sensation has aroused the mind's attention—if we have gazed intently upon it—if we have idealized it—if we have seized upon its prominent features, and thus placed it before us under a peculiar aspect of our own, then we may easily recal it;—just as easily, in fact, as we can repeat the operation by which it was first brought out to view. Thus, then, we see, that memory is simply the repetition of a simple mental operation, called attention, accompanied with the consciousness of its prior existence.

Next let us consider the immediate object with which the mind deals in the case of memory. We have experienced, I will suppose, a given mental perception some time ago; our attention has been directed to it, and has stamped it in outline upon the mind, in the manner we have just explained. Now, I happen to *recal* it, or, to use the common phrase, to *remember* it. What is it, then, that I recal? Or what is it that the mind is immediately contemplating, at the moment when I am said to

und Solches, welches ursprünglich (*d.h.*, dessen Original) gegeben ist, sich präsent macht, *d.h.*, welches *repräsentirt.*

remember a thing long gone by? The mind is evidently no longer dealing with the thing itself, nor with the sensation, nor with the perception which accompanied the sensation. It is dealing with a mental representation of it—*i.e., with an* IDEA.

Here, then, there comes to view an entirely new phase of our intellectual life. Instead of receiving sensations, instead of being sunk in the depth of our intuitions, we are now contemplating an object as it has been represented within us by an intellectual process *of our own.* We have taken that object out of one sphere and raised it into another; we have brought it over, in fact, into an ideal world, in which we can view it calmly and leisurely; and in order to contemplate its main features as forming one united intellectual reality, we have *suppressed* all that was unessential to them in the original perception. This is the first step in the process of representation—a step which is necessary to all the rest, and without which knowledge itself, in the higher sense, could never exist. So far, then, with regard to the psychological character of memory. The next step leads us to consider the phenomena of

II.—IMAGINATION AND ASSOCIATION.

The image or representation, which *memory* recals of any past object, is always connected in the consciousness with the previous perception of the object itself, and with the process of attention, by means of which it was still further idealized. Although we deal, therefore, in this case with a representative idea, yet that idea is not yet consciously freed from its connexion with the outward reality. It is formed, to a great extent, in accordance with the perception we experienced of that reality, or, at any rate, after the pattern of its most prominent features.

The whole process of memory, however, is only introductory to a subsequent step. The image we form of an object may become *so idealized*, that, after a time, we lose sight of its connexion with any given event in nature, and retain it, as a kind of fixed representation or idea, altogether separated from any reference to time or place. The representative faculty, arrived at this stage of its activity, is termed *imagination*.

The term imagination is applied to two processes, the one of which holds a somewhat higher place than the other in the scale of mental development. The lower of these two processes is termed *reproductive* imagination, and answers exactly to what has been just described. Its office is to store the mind with ideal images, constructed, through the medium of attention and memory, out of our immediate perceptions. These images, when laid up in the mind, form *types*, with which we can compare any new phenomena we meet with, and which help us to begin the important work of reducing our experiences to some appreciable degree of unity.*

Did they not exist, every fresh perception would be a new *wonder;* our life would be spent in gazing with absorbed attention, upon every thing around us,—just like the life of the child, before the memory and the imagination have duly come into play.

We may note the difference in our mental state, arising from the possession of these inward representations, if we only observe a child and an adult looking, for the first time, at some natural curiosity. The child is all wonder and amazement; he never tires of gazing; the intuitive process, which goes on within him, moves and interests the *feelings,* but does not engage the understanding. The adult, on the contrary, as soon as he has taken a first view, mentally compares the thing with some *idea* he has already stored in his mind, *i.e.,* he either *verifies,* or he *corrects* some previous conception, and, that done, is satisfied. The effect, therefore, of this new treasure of inward ideas is to raise the mind more and more above the immediate influence of external impressions;—to give it an independent material, on which it can employ its own intellectual activity; to create for it a new intelligible world, in which it can see the phenomena of the *real* world, newly arranged, and, at the same time, coloured by the hue of its own personal activity.*

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* Hence Kant attributes to the imagination the office of producing *Schemata;* those mediating representations between the senses and the understanding, which bridge over the gulph between the particular and the universal.—Kritik der reinen Vernunft.—*Transcendental Analytick,* book ii., chap. 1.

From these explanations it will be easily seen, how important a part the imagination plays generally in the production and development of human knowledge. By it the mind is furnished with an infinite variety of *inward representations*, separated from any circumstances of time and place, and containing on that account the first germ, both of abstraction and of generalization. By means of these types it is, that we possess the power of rightly appreciating every subsequent experience, and thus become furnished with a rich and ever-growing material for future thought. Through their instrumentality, in fine, the fruits of *all* experience become regularly *cumulative*, forming a solid mass of inward idea, capable of instantaneous reproduction, and consequently ready for hourly use.†

Such is the lower, though not the least important, kind of imagination. The higher kind of imagination is that which is called *productive* or *creative*. To understand the nature of this, we must suppose the reproductive process to be already in full operation; that is, we must suppose a number of ideas to be already formed, and stored up within the mind. These ideas, as we before showed, are constructed by a process of attention out of the multiplicity of our immediate perceptions, and will consist, therefore, not so much of the representations of *entire objects*, as of those parts and features of them, which appear most prominent and striking to each individual mind.

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* See on this—Erdmann.—Grundriss der Psychologie, sec. 100.

† Imagination, in this sense, is very nearly the same as what is termed by Stewart *conception*.—*Phil. of Human Mind*, part i., c. 3.

Now it is by no means necessary that these ideas should be reproduced *in an isolated manner*. They may be combined together, so as to form new images, which, though composed of the elements given in the original representations, yet are *now* purely mental creations of our own. Thus I may have an image of a rock in my mind, and another image of a diamond. I combine these two together, and create the purely ideal representation of a diamond rock. The elements being infinite in number, the combinations may, of course, be infinitely varied too. Just in proportion to the activity, with which the play of fancy goes on, image will succeed image, and assume, according to the characteristic habit of the mind, a grotesque, a beautiful, a diverting, or some other distinctive form.

Whilst, however, the flow of images through the consciousness, and their after-combination depend greatly upon the peculiar temperament of each individual, yet there are *general laws*, which to a certain extent hold good throughout mankind at large, by which this succession takes place.

These are usually termed the LAWS OF ASSOCIATION, and constitute a class of phenomena, which, from the time of Aristotle downwards, have occupied, more or less, the attention of psychological writers. To gain some critical idea of the laws of association, let it be first of all observed, that consciousness itself is only possible under the condition of a *succession* of phenomena in the mind. If the flow in the stream of our thoughts stands still, consciousness stands still with it; we become *immersed* in the present; and only awake to a consciousness of it, when the tide flows on again, and we see from that very fact, where we were *then*, and where we are *now*.

In the case of perception, the succession of phenomena is provided for, and even necessitated, by the changing influences of things around us. But when we shut out the material universe from our view, when we become occupied with mental images only, and retire into our own self-created intelligible world,—then, there must manifestly exist certain *inward* laws, regulating that succession of mental phenomena, by which consciousness itself has to be perpetually sustained, and carried forward.

These laws, we find, from a very slight consideration, vary, greatly, in regard both to their certainty and their universality. There are, at least, *four* different classes, which can be readily pointed out, all materially differing in this respect from each other.

1. In the first class we include those cases where there is an *essential affinity in nature* between the asso-

ciated ideas. Many of our ideas, we perceive, exist as correlates, the one of which absolutely involves the other. Thus the word *father* stands in correlation to *son*,—*light* to *darkness*,—*good* to *evil*, &c. Others, again, stand in the correlation of cause and effect; as the sun and daylight,—fire and warmth,—snow and cold, &c. In all such instances as these, the one idea *necessarily* suggests the other, from the very fact of their constituting together one whole phenomenon in our past experience. Their observed unity in *nature* necessitates a unity in *thought*; for every process of perceptive experience, by which the one image has been formed, has also contributed its share to form the other. This law of correlation, then, may be reckoned *absolute* and *universal*.*

2. The second class of associations are those, in which there is a real *similarity* between the two objects; as when one countenance or one landscape or one edifice suggests another, which resembles it. Such suggestions depend upon that peculiar law of our nature by which an existing idea tends to bring into consciousness other ideas of a similar character, which we have already experienced. The similarity, however, may be one not only of *feature*, but of *function*. Thus the arm of a man may suggest the arm of a chair;—or the head of a man, the head of an army. This is the basis of what is usually termed analogy; and which, in

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* Sir W. Hamilton has termed it the law of *relativity* or *integrations*.—*See* "*Dissertations on Reid*," note D***.

the above instance, may be thus stated:—As head: man :: general : army. The law of similarity, though universal in its operation, is by no means so *absolute* and uniform as that of correlation. The mind of each individual, from its own peculiar constitution, plays a considerable part in the manner and degree of its operation. If the representation or analogy exhibit the associated object, *in the exact way, in which it has struck our attention*, the suggestion will be immediate and powerful; if, in any *other* way, the suggestion will be proportionally weaker.

In an intellectual as well as a scientific point of view, this law is of the *utmost weight* in our mental development. It is by seizing upon similarities, as we shall hereafter see, that the processes of abstraction and generalization are carried forward: while the suggestions of analogy form the most fruitful hints for all kinds of scientific research.

3. The third class of associations are those, in which there is an *artificial* rather than a *real* affinity between the associated ideas. It may be termed the *law of contiguity*. This artificial affinity may arise from a co-existence of phenomena, either in regard to *time* or *place*. Things which have no natural connexion, yet become indelibly associated in our minds, when we have been accustomed to witness them often at the same period, or in the same locality. The mental experiences, by which the one image has been formed, have so frequently involved the elements, which enter

into the other, that a close connexion has gradually become cemented between them. Moreover, if the objects related have been absolutely co-existent, they will always be reproduced simultaneously; while if, on the other hand, they have been witnessed in succession, they will reproduce themselves only in succession. This law of co-existence and succession, though subject to minor variations and modifications, yet may also be regarded, in the broad outline of its operation, as universally applicable to humanity at large. Although by no means so influential in relation to our intellectual development as those laws, which are grounded in nature itself, yet it subserves the most important purposes in reference to the powers of memory, and is indispensable, as preparing us for the practical avocations of human life.

4. The fourth class of associations are those, which depend wholly upon the *temperament* and *idiosyncrasies* of the individual. The peculiar *mode* in which we attend to any series of phenomena, the influence of the feelings and will upon our mental operations, the tendencies of the mind to unite facts under one aspect rather than another, the strength of the passions, the vividness of the fancy, all modify, more or less, the flow of our mental associations. The causes of these differences we cannot divine; they lie beneath our gaze in the organic structure of the entire man, and belong really to the department of anthropology, rather than psychology. The psychological part of

the law lies simply in the fact—that men, *universally*, are influenced in their suggestions by the peculiarities of their own temperament, as well as by the more general causes, which we have already described.*

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* "The law of association is this: That empirical ideas which often follow each other, create a habit in the mind, whenever the one is produced, for the other always to follow. To require a physiological explanation of this is in vain. . . No explanation of it is practical—that is, it cannot be employed for any use, because we have no knowledge of the brain and of the points in it, where the traces of impressions *out of consciousness* might come into union sympathetically with one another, by mutually touching each other."—*Kant's "Anthropologie,"* 182.

In this passage Kant has gone a little too far, in denying the possibility of all physiological explanations. The following passage from Dr. Carpenter's "Physiology," goes somewhat further,—as far, perhaps, as it is possible to go, at present, in this direction:—

"The readiness with which associations are formed varies greatly in different individuals, and at different periods of life. As a general rule, it is far greater during the period of growth and development, than after the system has come to its full maturity; and remembering that those new functional relations, between other parts of the nervous system, which give rise to the secondarily automatie movements, or acquired instincts, are formed during the same period, it seems fair to surmise that the substance of the cerebrum *grows to* the conditions under which it is habitually exercised: and as its subsequent nutrition, according to the general laws of assimilation, takes place on the same plan, we can understand the well-known force of early associations, and the obstinate persistance of early habits of thought."—*Human Physiology*, p. 802.

The association of ideas exhibits the mind in a state of more free and self-determined activity than any, which we have before considered. Up to this period, it has been bound down to exercise itself upon what is *given* in our actual experience; now, however, it has broken loose from this, forms free representations of its own, and begins to live in an ideal world, in which every phenomenon is strictly *of its own production*. Nor is this all. It can now pass from idea to idea, not by any outward constraint, but by virtue of an internal law of its own nature. All alike shows, that, one after the other, the bonds, which circumscribe the freedom of the intellect, are being loosened,—that it becomes less and less *determined* by the outward world, and more so by the structure of its own being.

Throughout all these processes of the imagination, moreover, we can see a gradual approach to the region of the general and the abstract. The more concrete elements, which are present in all our intuitions, gradually disappear; the mind becomes occupied more and more with the prominent features; these features become detached from their original connexion with any given time and place, and remain, as independent ideas, in the mind—portions of images, retaining, indeed, the hue of external reality, but yet gradually losing the clearness of their colouring, in proportion as they grow up into a more purely ideal form. Before the process of generalization, however, can become complete, another aid is necessary,—I mean that which springs from the use of outward signs. This leads us to consider—

III.—THE SEMATIC POWER.

Through the whole of this representative stage of the mind's activity, one main purpose has been steadily kept in view. That purpose is, to separate the thing about which the mind is occupied, as completely as possible, from the restraints of outward experience; and thus to render it a distinct and intelligible object of contemplation, which can be placed, at pleasure, either within or without the consciousness of the moment. Every fresh process we have noted has contributed somewhat to this end; and yet the end itself is not yet *fully* secured. In memory, and in all the different forms of imagination, a considerable *intuitive* element is still present, unresolved into pure idea. The images with which the mind deals have still much of the freshness and colouring of *reality*. It is true, they may be, in the case of productive imagination, purely mental creations; yet they are creations, formed out of fragments of our real perceptions, and closely related, therefore, to our subjective experiences.

Something is yet wanting, before the inward representation can be projected, mentally, quite *out* of ourselves; before it can become wholly *objective*, take an independent intellectual position, or be recalled and dismissed at pleasure, without losing any of its distinctive features. This complete result is effected only by the use of signs.

Until signs are employed, our mental images are not held clearly apart: they merge, like dissolving views, into one another. Our life, in fact, without them would be more like a dream than a waking reality,—portions of a thousand different ideas perpetually combining with and melting into one another. Language, on the other hand, forms a new world, in which all our mental processes are *objectified*—held clearly apart—and not only made distinct to ourselves, but so embodied as to be rendered likewise separate intellectual realities to other minds as well.[*] Our next object, then, must be to analyze the psychological elements, which are contained in what we have termed *the sematic power*.

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[*] Compare the following passage from W. Von Humboldt: "It is our inward activity, that constructs the *object* in thought. For no kind of intelligence can be considered as a *barely receptive* contemplation of a present object. The activity of the senses must unite itself synthetically with the inward processes of the mind; the representation then frees itself from this connexion,—becomes an object to the subjective faculty, and, at last, having been so perceived, returns to it back again. To this end, however, language is *indispensable*. For whilst the mental effort forces a passage through the lips, the *product* of it returns back to it through the ear. The representation is, therefore, transferred into a true *objectivity*, without becoming the less *subjective*. Speech alone can do this; and without this

We will now suppose, that the mind has arrived at the point of development indicated by and involved in the association of its ideas. The process of abstraction has gone so far forward, that some of the most striking qualities of the phenomena around us have been formed into independent mental representations, and now exist in the mind distinct from any given object to which they consciously apply. In nature, however, the qualities of all perceived phenomena, we well know, take a variable character. At one time they are more intense than at another; anon, they will vary in *kind* as well as degree; all of which changes render it the more difficult for the intellect to unite them under one common representation, or to seize upon the precise features which will best include the whole. So long as the representation remains *purely subjective*, it is in all probability impossible to do so; for the influences to which the mind is open on every side lend to all our inward perceptions and ideas a very unfixed and fluctuating character. Could the idea only be projected from within to the world without; could it be separated from the variable states

perpetual transference of subject to object, and object to subject again (which is accomplished only by language,) no *concept* can be formed, and, consequently, no *thinking* is possible."—"*Introduction to Kawi-Sprache.*"

of the soul; could it become *fixed* in an objective form, then there would be a middle point out of the mind itself, around which all the future fluctuations to which it is exposed would revolve—a kind of invariable *type* to which every future experience on the question could be referred.

The objectifying of our inward ideas, then, is a process most important to the progress of our knowledge, and one to the completion of which the soul is impelled with all the force of its intellectual nature. The first effort to do so is, perhaps, seen in the choice of a symbol, which, having a natural affinity to the idea, can be used to signify it. The early periods of human development show evident marks of a symbolic language. At first, such language would be a rough imitation of the real phenomenon produced by movements of the outward organs, or by inarticulate sounds. Soon, however, objects in nature would be selected, that have an obvious analogy with the mental image; the more so because those objects are *fixed*, and do not depend, as mere imitation does, upon the act of the moment. Thus, when we see the lion taken as an emblem of fierceness; the horse, of swiftness; the dove, or the lamb, of gentleness; when we see this, too, as the most natural form, in which the untutored mind expresses its ideas,—we have before us, in all probability, the remnants of the process through which the power of expression first had to pass, ere it grew up into a more perfect form.

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The use of such symbols is manifest. The images, which the mind possesses of any given quality, when once symbolized, remain no longer merely subjective, and changeable representations. They are thrown into a fixed and a significant type, which performs, however imperfectly, the office of an abstract idea. The presentation of that type will now recal the idea itself far more perfectly than could possibly have been the case had it not taken a *symbol* by which to gain a constant expression; for it keeps one prominent feature in the whole mass of experiences uppermost, and arranges the rest all round it.

It is not necessary, however, that the symbol should have any affinity *in nature* with the thing signified. It requires but a very slight increase of intellectual power to fix upon an *arbitrary sign* to serve the same purpose as the *natural one;* and then just in proportion as the sign expresses only what the mind has consciously thought into it, it becomes just so much the more perfect as an instrument for embodying the idea.

Thus, at length, the mind, at least partially, attains the end for which it had so long been striving,—namely, the complete separation of its ideas from the region of inward experience, and their embodiment in an objective reality. The relative position of the idea and the natural object has, in the meantime, become exactly reversed. In perception, the object took the initiative, and the idea was formed in response to the impression made upon us from without. Gradually, the direct influence of the object became less, and the element supplied by the mind's activity greater; until *now* in the use of arbitrary signs, we see the mind first constructing its own ideas, and then freely embodying them in the object.*

One step more is only necessary to make the sematic process complete: namely, that instead of using some sign, existing apart from ourselves, for the embodiment of the idea, the mind should construct freely for itself, the *idea* and the *sign* likewise. This is actually accomplished in the very first articulate word that is uttered; so that here, at length, *in the word*, we see the triumph of the representative faculty. In the construction of the elements of language, it has raised itself above feeling, above intuition, above all the inward images of imagination; it has created a *new external world*, transferred into that world the phenomena of its inner life, and achieved the first step *in the freedom of human thought*.

In words, then, as we see, we have the peculiarities both of the perceptive and the representative elements in human knowledge combined. The peculiarity of perception is, that it supposes the presence of a real concrete object; while the representative faculty supposes the presence of an internal or ideal object. In language we have *both*. The sign, whether spoken or written, is objective—it appeals to the *senses*; it comes to us from the outward world, and is constructed from elements of nature around us. At the same time it has no natural meaning, and contains no thought apart from the mind which created or uses it; its whole essence consists in its being the embodiment of an idea. In brief, *it is idea objectified.**

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* See Erdmann's "Psychologische Briefe;" especially the analysis he gives of the Origin of Language, in Letter 17.

Language, then (containing, on the one hand, the properties of an outward world separate from thought, and, on the other hand, the properties of pure ideality as being wholly the product of mind,) forms a middle sphere of existence between thought and being, into which all the phenomena of the universe may be so translated as to become at once accessible to the human understanding. Nature and idea there meet together in one indissoluble unity. The materiality of the one becomes plastic and penetrable to human thought,—the ethereal texture of the other becomes fixed and permanent as the rock on which its symbols are hewn. We *perceive* the phenomena of nature by virtue of the adaptation existing between it and our own minds; we *comprehend* them only in the form of language. *The world must be known through the word;* there alone it is presented to us, so as to be at once intelligible to the intellect.[*]

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* So W. von Humboldt—the first man who raised the investigation of language to the dignity of a science: "Die Sprache gibt immer zugleich mit dem dargestellten Object die dadurch hervorgebrachte Empfindung wieder; und knüpft in immer wiederholten Acten die Welt mit dem Menschen: oder anders ausgedrückt, seine Selbstthätigkeit, mit seiner Empfänglichkeit in sich zusammen."—"Introduction to Kawi-Sprache," p. 68. Compare also, Fichte's tract on the "Ursprung der Sprache."

We can now determine with some degree of accuracy the precise sphere of inward mental activity, which is visibly represented by external signs. The first two stages of mental phenomena, the sensational and the perceptive, have *no words* corresponding to them. Consisting entirely of subjective impressions, determined by the peculiar circumstances and individuality of each mind, they cannot be externalised, or conveyed to another mind with any degree of completeness. It is always left to us to conjecture from the analogy of our own feelings, what is experienced by others, in reference both to their *sensations* and *intuitions*. No *word* that we can employ is able to convey their equivalents to another, *i.e.*, can make him feel a sensation which we feel, or experience an inward light, which reveals the primary material of knowledge to ourselves.

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[*] So, again, Wilhelm von Humboldt: "Es liegt in jeder Sprache eine eigenthümliche Weltansicht. Wie der einzelne Laut zwischen den Gegenstand und den Menschen, so tritt die ganze Sprache zwischen ihn, und die innerlich und äusserlich auf ihn einwirkende Natur. Er umgibt sich mit einer Welt von Lauten, um die Welt von Gegenständen in sich aufzunehmen und sich zu bearbeiten. Der Mensch lebt mit den Gegenständen hauptsächlich, ja, (da Empfinden und Handeln in ihm von seinen Vorstellungen abhängen,) sogar ausschliesslich so, wie die Sprache sie ihm zuführt."—"Introduction to Kawi-Sprache," p. 74. Compare, also, "Feuerbach und die Philosophie," by R. Haym—a tract that penetrates with singular depth into this problem.

So soon, however, as we get within the region of representative ideas, the case begins to alter. Such ideas are formed, as we have seen, out of a large mass of individual experiences, by seizing upon the prominent features, and leaving the rest to fade away out of the consciousness. Although, therefore, the individual experiences of every man may differ, and thus be *incommunicable*, yet minds constituted like our own, and placed in similar circumstances, may easily cull certain *general characteristics*, which enter into the personal experience of all alike, and find at length that they can all agree upon some arbitrary sign by which to express them. This result, of course, can only take place after the representative faculty is considerably developed, and has carried us onwards to a considerable distance beyond the sphere of intuition. In cases of *mere memory*, for example, it could not be successfully accomplished, because the mental image is here entirely dependent on the character of the particular experience which it recals, and must be exclusively a function of the *individual*. Nor, for the same reason, can the process above described be carried out with any degree of completeness, even in cases of productive or reproductive imagination, until the images have attained a very considerable degree of generality.

When, however, these images have been *wholly* separated from time and place, when they have been formed out of a vast number of experiences in such a way, that the common features only are conserved; in brief, when the elements derived from our own personality are well-nigh suppressed, and those which flow from the more universal laws of mental association only remain, then the sematic faculty comes at length into play, embodies the common representation in an outward sign, and *leaves it there*, as an intellectual reality, easily recognised by all who have gone through the same mental process as that, by which it has been gradually formed. *All notional words*, accordingly (leaving relational forms of expression for the present out of the question), which arise in the natural development of the human mind, *answer to the region of representative ideas, when those ideas have attained their most general character.* They correspond exactly to that state of mental activity, where the imagination is passing over from its more concrete to its more abstract form.[*] They become, in this way, the indispensable machinery by means of which the process of generalization and abstraction may be eventually completed, and the mind become elevated above the region of representative ideas into that of *thought* or *intellect*, properly so called.

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[*] "Die Sprache an sich ist also nach dem gesagten nicht mit dem *Denken* identisch; sondern sie ist eine bestimmte Weise des Denkens,—sie ist Denken in der Bestimmung der Selbstanschauung,—der *Vorstellung*." ("Classification der Sprachen, von H. Steinthal," p. 62, containing a very acute treatise on the philosophy of language, the main result of which is expressed in the above sentence.)

From the above analysis it becomes manifest, that words are not the immediate representatives of things themselves, but of our more general images or ideas of them.* They represent the final result of a long course of mental effort, throughout which we have been unconsciously collecting and associating the most important elements in our mental experiences, just so far as they are necessary to classify the phenomena around us under certain general representations, and so to form *fixed objects of thought.*

Thus, in the primary *sensation*, we feel the external impulse of the real object, as it affects the nervous system, and through that the mind: in *perception*, we translate that impulse into the form of *intelligence*, perceiving and knowing the objects affecting us by virtue of the harmony that exists between mind and nature. In *memory* and *imagination*, we embody our inward experiences in mental images or representative ideas; and these ideas, when sufficiently generalized, we objectify, and fix in symbols or words. Words thus become the final expression of that entire mental process by which human knowledge reaches the point of development here indicated, and the depository of its final result.

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* So Locke. "Give me leave to say that it is a perverting the use of words, and brings unavoidable confusion and obscurity into their signification, whenever we make them stand for any thing but those *ideas* we have in our own minds." ("Essay," book iii., chap. 2.) The whole chapter on "Words or Language in General" should be well studied by every student of mental science.

As individual words only correspond with mental phenomena of the precise character we have just indicated, it follows, that they are uniformly abstract in their nature, never expressing a purely concrete experience, but always a generalized image of the thing to which they refer. They cannot excite the feelings like a gesture; they cannot warm the imagination like a picture; they have, moreover, but a distant and secondary relation to our concrete perceptions. They represent simply a course of mental action, in which we grasp the essential elements which distinguish one thing from another, and make those elements spontaneously the ground for a classification of our multifarious experiences. In this way it is that they serve to construct the more general outlines of human knowledge. Hence the wonderful power which words possess in the whole process of human thought; hence the capacity they attain, after the teachings of experience have paved the way, for expressing the very essence of the things to which they relate; hence, too, their use in forming a broad platform, on which the results of all the lower processes of mind are plainly recorded, and from which we can commence those higher forms of activity which give to reason its all but infinite range, and all but omnipotent force.

Another important point, too, in reference to the nature of outward signs, can now be made perfectly obvious, namely, that words have no *absolute* meaning, but can only signify to any individual what he is able to convey into them from the results of his own inward life.

There are two mental elements concerned in the formation of words, a *material* and a *formal*. Under the material element we include every thing which is given in the intuitions—every thing out of which the general idea is formed, and which constitutes, on this very account, the matter or substance of our knowledge. Under the formal element we include all, which the laws of mind effect by associating the analogous elements of our intuitions together, bringing them into a definite shape, and moulding them into one general representation, capable of being embodied in a sign.

Every word, being abstract by nature, bears upon it the impress of the universal laws of mind, and, *so far*, presents to all the same *formal* significancy. But, then, these laws of mind have been exercised upon that varying mass of actual mental experience, out of which all our inward images are drawn, and the most general representations constructed. The real substantial meaning of every word, therefore, will depend upon *the character and intensity of these primary experiences;* for however similar may be the formal processes of generalization, yet it is to the intuitions themselves we must look, as determining the real living idea which underlies all our intellectual forms of expression.

In points where the mental experiences or intuitions of mankind, in every age and country, have been well nigh identical, the corresponding words will be so much the more synonymous. Such, for example, is the case with reference to the primary properties of the material world, which, as they affect all minds nearly alike, give rise to a series of words that, in all languages, answer very nearly to each other. On the other hand, when we go into those regions of mental experience which vary with every fresh condition of humanity, whether in regard to race, country, age, or national development, then we see at once how diverse, both in the character and intensity of their meaning, will be the *terms* in which these varied developments of mind have embodied themselves, and how different will be the *ideas* couched under the very same words, when they express the last result of a different course of human experience.

The language of a people is by no means a system of signs *arbitrarily* made for expressing the phenomena with which they are conversant; it is throughout a reflex of their spontaneous mental operations; a portrait of their entire inward life, presenting the exact mode in which things natural and spiritual have represented themselves to the national mind. The names, even of the most common objects in nature, exhibit the exact degree of generality to which that mind has attained in its approach towards physical science. Much more will the current terms for expressing moral or religious ideas exhibit, as in a mirror, the precise modes in which these different spheres of thought have shaped themselves in the course of man's intellectual development. It is this which renders it *impossible* for us perfectly to reproduce the meaning of words, which grow up in a state of civilization and moral development *wholly different* from our own; and this we may likewise add, which renders it philosophically certain, that human words can never be the ultimate measure of absolute and infallible truth.

The relation of language, then, to our ideas may now be summed up in a very brief space. We have seen, first of all, that they do not directly indicate things themselves, but our generalized experience of them. The amount of generality, however, which they contain, rises in infinite gradation, from the more individual side to the more universal. The only sign which expresses an absolutely individual experience is a gesture, or an inarticulate cry. Even an interjection, which comes next to what is inarticulate, has a certain amount of generality about it; for the very fact of its taking a given articulate form, identifies the emotion of the instant with certain prior ones, of which the exclamation in question is the common symbol. Still more is this the case with all nouns. Proper nouns themselves are, in fact, general terms; for if I use the term "John Smith" to indicate an individual man, it does not represent to our minds any one definitive experience of John Smith, whether sitting, standing, sleeping, or working, but the generalization of our whole experience concerning him up to the present moment. A purely individual word is a *fiction;* if it gather under it more than one momentary feeling (which every *articulate* word does) it must be to some extent *general*. .

Poetical terms are those which, after proper names, lie nearest to the experiences themselves, and have the least amount of abstraction in them. Hence their universal use amongst uncultivated nations, previous to the reflective faculty being properly developed. Next to poetical language, we should place simple narrative expressions, which convey facts in a more generalized form than descriptive poetry, and indicate a greater amount of *reflective* power. For this reason, we always find that prose is a subsequent creation to poetry in the literary development of every people. Lastly, there are purely abstract ideas, and, answering to them, what we may term philosophic prose; the words here employed requiring for their comprehension and use a high degree of intellectual culture, and lying furthest of all from the experiences out of which they have been originally constructed.

Thus all the different kinds of terms, of which language is composed, have a given degree of mental abstraction or generalization, standing parallel with them—some a small degree, and some a high one. The very fact of our constructing *a name* at all—whether for a substance, a quality, an action, or a relation—indicates that we have proceeded in the pathway of intelligence far beyond the immediate phenomena of experience. It shows that our attention has been directed, by a reflective process, to the experiences themselves, that we have singled out some portion of them which is most distinctive of the thing to be named, and that we have thus gained some element of *explicit* knowledge in addition to the primary intuitions of the soul.

The more general the term, the higher the *kind* of knowledge which it expresses, and the more closely is it brought into harmony with the abstract laws of thought. There is only one danger to be avoided in the use of highly generalized terms, that of losing the whole element of experience out of them, so that they become hollow and insignificant. Every generalization, realized and embodied in a term, derives its whole inward life and force from the individual phenomena in which it first originated. Where there has been a similar course of mental experience amongst a given number of individuals, and the impression of that experience is retained, the abstract terms employed by them will express to each mind as nearly as possible the like equivalents. But, even *here*, they should be renewed and vivified from time to time, by a recurrence to the concrete phenomena. When this recurrence is precluded or neglected, abstract terms are always in danger of exhaling their spirit and power, just as an odorous object loses its fragrance by use.

In our ordinary intercourse with the physical world there is comparatively little room for diversity in the character of the experiences which are gained from it by different men. But, even here, we should be mistaken if we supposed that they were absolutely identical, or that foreign words, which are regarded as equivalents to such terms as flower, tree, cloud, river, &c., are *absolute synonyms*. They all vary in character, exactly as the experiences of them, whether from subjective or objective causes, vary amongst different people, and in different parts of the world. Still more is this the case with terms depending upon the experience of the moral, æsthetic, or religious faculties. *Love, amor, Liebe, amour, αγαπη*, all express ideas as different as the temperament of the people by whom they are employed; nor can they by any means be substituted as perfect equivalents, in every case, the one for the other. It is to the error of neglecting the primary intuitions, and treating abstract terms as though they expressed, not only realities apart from our experience, but exactly *equivalent* realities, to every mind, that half our confusion in speculative questions is commonly due. Words cannot represent to any one more than he has actually realized of the thought which they are intended to convey. To employ them in a sense which transcends the limits of our inward experience, is to talk without meaning, to engender mere logomachies, and thus to pave the way for hollow delusions, or empty sophistry.

It is evident, therefore, that as far as words are concerned, no use or study of them can supply the place of each man's individual experience of the *realities* themselves; their great use is to enable us to intellectualize and classify our perceptions and ideas, so that we can rise at length to the proper comprehension of GENERAL TRUTH.

CHAPTER VI.

FOURTH STAGE OF INTELLIGENCE.—INTELLIGENCE AS THOUGHT.

Die Vernunft ist Geist, indem die Gewissheit, alle Realität zu seyn, zur Wahrheit erhoben, und sie sich ihrerselbst, als ihrer Welt, und der Welt als ihrer selbst bewusst wird.—HEGEL.

UNDER the sematic faculty we have considered the process of embodying our ideas in signs, and the aid which is thus rendered to the development of the human intellect. These signs, when once formed and indissolubly associated with ideas, are so retained by the mind, as to stand ready for immediate use, whenever we may require to communicate our notions to another. The power of retaining words, and of reproducing, through them, the ideas which they embody, is termed *recollection*.

This particular form of memory is strongly developed in childhood, and subserves the most important purposes in the mind's early growth. Language, we must remember, is not constructed afresh by every individual mind which uses it. It is a world already created for us, one into which we have simply to be *introduced*, and in which the process of human development, up to any given period, is more or less perfectly preserved and registered. Recollection, accordingly, by enabling us to appropriate to ourselves a whole system of signs with the ideas attached to them, initiates us, insensibly, into the intellectual world of the present, puts us upon the vantage-ground of the latest degree of civilization, and enables us to grasp the ideas of the age, without having the labour of thinking them out consecutively, by our own individual effort.

We have not yet reached the point, however, in the mind's organic development, in which it creates and employs language in its completeness. We have analyzed, indeed, the process of forming *individual words*: but words, individually considered, do not make a language. Language involves the further power of *combining words together*, so as to express not merely isolated notions, but the various *relations*, which those notions bear to each other. Such a power is evidently higher in the scale of intellectual development, than that of merely constructing individual signs. In the latter case, we are only engaged in the work of *representation* (representation, it is true, in its most complete form); but in the former case we are judging *explicitly* between one representation and

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another, and framing a method by which such judgments may be afterwards articulately expressed. It is exactly here, accordingly, as we shall soon perceive, that the power of representation passes over into the distinctive sphere of *thought*. This brings us, then, to consider,

I.—THE UNDERSTANDING.

To follow the order of analysis as closely as possible, let us start from the vantage-ground, which the intellect has gained by the use of words, as shown in the last section. The result of these new instruments soon makes itself manifest. Previous to the use of words, the different elements of our mental images were not held clearly apart. They flowed insensibly together according to the arbitrary play of fancy, so as to give rise to new and strange phenomena, succeeding each other indeed according to the laws of association, but producing no steady and progressive development of knowledge or experience. Now, however, every striking and prominent feature, which our inward experience presents, can be readily objectified, clothed in a sign, and thus held intellectually distinct as an object of mental contemplation. Thus far we had already advanced in considering the representative faculty.

Now let us see, next, what is the result to which all this naturally leads. Every object, which the mind contemplates, presents a cluster or combination of *qualities*, which qualities constitute the entire concrete phenomenon that we term *a thing*. The less essential of these qualities, as we have before seen, disappear in the process of forming *ideas*, and only the more essential or striking ones remain. It so happens, accordingly, that the mind, starting from a number of *different* objects, which yet have certain great qualities in common, will readily eliminate from each one the points of diversity, and find, at last, that they all unite in the same *scheme*, or *general representation*. If this general representation is, in every case as we go on, fixed and expressed by a term, it will soon become manifest, that *the very same term* may be equally well applied to a great number of individual existences; that it will express what is alike essential to them all, as mental phenomena; and that it may be henceforth used, as the *common sign*, for the entire class. Thus, at length, by the most natural steps, the mind arrives at a *complete generalization*.

By a slight variation of the process, we may separate any given quality from a number of different objects, and instead of regarding these objects in their more generalized form, may banish them from the consciousness altogether, and consider only the quality, which we have separated alike from them all. This quality, accordingly, when thus isolated, fixed by a term, and retained as a distinct object of thought, forms what we call an *abstract idea*,—a product which, in the same manner as a generalized object, can likewise only be perfected by the use of words.

Here, then, the whole concrete world, with its images and impulses, may pass away from the consciousness, and the mind occupy itself, for a time, only with abstractions and generalizations, as exhibited in *words*. The effect of this is to give immense *breadth* and *extension* to our knowledge, while it draws us, proportionally, away from its minor details. As long as we were engaged with perceptions, or the images formed immediately from them, the intellect was kept closely directed towards the outward object itself,—towards its present aspect, and its multifarious phenomena. But, gradually, the case alters. The process of generalization suppresses the smaller details, and concentrates our attention upon what is more essential. Such essential features, uniting together by virtue of the great law of similarity, and blending into one common representation, become, accordingly, the basis of a logical distribution of our ideas under a number of general heads, each of which is marked and distinguished by a separate term. Thus, if we collect all the general terms of any given language, we shall find, that they contain a complete classification of our inward experiences—so arranged, too, that, instead of being perplexed with their multiplicity, we have them duly subordinated to each other—all holding their proper place in the whole system of human intelligence, and ready, as such, for immediate intellectual use. Here the human intellect finds a far wider scope for its activity, than any to which it had previously attained. The path to *general* knowledge being now open, it can leave the consideration of mere details, and go onwards to the nobler goal which lies before it. Let us trace its footsteps upwards.

The first thing which the mind attempts, after it has acquired the use of this new fund of abstract and general ideas, is to *compare* the terms, which express them, with one another, so as to estimate their relative agreement, or disagreement. A latent act of comparison, indeed, exists through the whole exercise of the representative faculty, such comparison being absolutely necessary to form general ideas at all. We may term it there, *implicit thought*—thought which has not yet come to the consciousness of itself, or been embodied in any external form. Here, however, the thought becomes *explicit* and distinct, seizes upon outward and visible signs as the points of comparison, and passes various kinds of judgments upon them, according to its present intellectual wants.

These judgments may be classified under three heads. Either we may compare an abstraction with an abstraction;—or we may compare a generalization with a generalization;—or we may compare an abstraction and generalization together.

First, it may be a question, how far one abstract *quality* agrees with another, as white with dazzling;

green with agreeable; black with sombre, and so forth. If such agreement be found to exist in nature, then we assert it in the form of *a proposition*—as, white is dazzling—green is agreeable—black is sombre. In these cases the copula "*is*," simply joins the two abstractions together, and indicates that the former idea, in each proposition, always coexists, in our experience, with the other, or follows immediately upon it.

Or, secondly, we may take two generalizations as the points of comparison, connecting them also together by the copula in a propositional form; as, coal is a mineral;—a bird is an animal, &c. Here, however, the signification of the copula becomes greatly modified by the nature of the terms. It signifies that both the terms in question have been generated out of experiences formed from the *same series of external objects* (by suppressing the unessential features, and retaining the common points of resemblance); but that the *former* retains, under it, or *connotes* more of the concrete qualities than the latter. The coal, *e.g.*, contains all the characteristics of the mineral, *and more besides*;—conversely the mineral *comprehends* all the individual existences, noted by the word coal, and many other existences as well. It may seem strange, at first sight, that one monosyllable should express all this. We must remember, however, that these short relational words embody the final result of a long process of mental action;—that the relation they point out between two terms is *the fact* to which all our past experience on the subject has been tending; and which registers the extent of our knowledge respecting it up to that point.*

Once more, we may compare a general term with an abstract one. The word stone, for example, may be felt to have some kind of agreement with the word hard,—tiger with fierce,—snow with cold, &c. Putting these, as before, in the propositional form, we have the copula now expressing the fact in human experience, —that the given substance is *always* associated in nature with the given quality, and that the quality accordingly forms one of its distinctive attributes. In other words, that wherever the general qualities which form our whole experience of the thing are found, the particular quality now predicated is always found in conjunction with them.†

We find, accordingly, that the mind, when arrived at this stage, not only apprehends the various and complicated *relationships* which exist between the generalized representations it had already formed, but, in apprehending, learns to *express* them also. Just as the representations themselves become fixed, and defined by means of *terms;*—so do their conditions or relationships to each other become so, by means of *propositions.* It is in the process of giving expression to such conditions and relations, together with the circumstances of time, place, manner, &c., which accompany them, that *language,* or continuous speech, first comes into existence, and is moulded, step by step, into a complete organ of thought.

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* Consult Mill's "Logic," chap. v., On the *import* of propositions.

† Individual propositions, such as, Mont Blanc is lofty—this dog is black, &c., come under exactly the same laws of predication. The individual *name* is equivalent to a *generalization* :— it denotes the complex or whole sum of experiences, which go to make up the thing named; and the proposition asserts, that in whatever way we experience or view the object, the quality predicated of it co-exists with the whole phenomenon.

A sentence or proposition in language answers to a *complete thought* in psychology. By a complete thought, in the sphere of the understanding, we mean *a distinct act of comparison between two terms, in which we apprehend the relationship that exists between them.* All logical or formal thought (of which we are now speaking), answers exactly to this explanation; and the mental activity by which we compare terms—find out their exact agreement, or disagreement,—give expression to this in propositions,—and deduce other propositions from them, is that which, *par excellence,* bears the title of THE UNDERSTANDING.

Now that we have attained a distinct idea of the rise and nature of the understanding, we may look a little more closely into its operations, and see in what way it carries us into a region of intellectual activity, altogether different from the processes already analyzed and described.

The abstract notions and generalized ideas which have been formed in the manner before explained, and which are now held distinct from each other by means of words, universally retain, amongst those who have experienced the intuitions out of which they are formed, *some impress* of their origin. When, however, the mind begins to deal with them for purposes of formal reasoning, and regards them merely as *terms*, to be compared and estimated, it soon loses all sight of those intuitions, and seeks to fix the meaning of each term it employs by pointing, not to the phenomena in nature, which they are intended to denote, but to the *other terms*, which they either exclude or comprehend in their logical signification.

Having become, in this way, apt in the use of language, and accustomed to employ words according to their defined logical signification, it is a very easy step for us to make use of terms, without having ever experienced the real phenomena, that led to their formation. We may obtain the most precise knowledge of the logical meaning of such terms,—understand exactly what *other terms* agree or disagree with them,—use them correctly in conversation and argument,—employ them with the utmost accuracy as signs, of a given formal comprehension, while, at the same time, we have never possessed one of the intuitions, or of the mental images, out of which the abstraction originally proceeded.

To take a familiar example; an untaught African has often seen the hippopotamus in his native rivers, and has a *name* by which to designate him. An educated European probably has never seen the animal at all; and yet, by the relation of ideas, he knows far better *what it is* (logically speaking) than the man who has watched all its habits from his infancy. The term, by which the animal is noted, has manifestly a different *intellectual force* in each of these cases. In the former it represents a mental image, formed out of a continued series of experiences; in the other case it is a pure generalization, understood only by its definition, and its relationship to other terms that express the most prominent abstract *qualities* of the animal itself.

The former of these mental productions would be termed, in German technology, a "*Vorstellung;*" the latter would be termed a "*Begriff.*" To make our English phraseology equally clear, we may call the one a *generalized idea,*—the other a *concept.** The distinction between the two lies here; that the generalized idea always looks *back* to the concrete experiences, as the *source* from which it has been formed; while the force of the concept depends entirely upon our retaining the consciousness of the other abstract qualities, or existences, which may be affirmed or denied concerning it. The one is *still* a mental image, though it has no

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* The term concept has been introduced by Sir W. Hamilton to signify a general notion *in the logical sense.* The convenience of having an expression, so perfectly definite, for this purpose, is too obvious to need any apology for employing it.

individual reality answering to it;—the other, as its name implies, is a mere *bond*, which holds together in its intellectual embrace, a certain number of other well-defined abstractions, without any immediate reference to the objective reality of the things they denote. The very same word may express, as circumstances require, either an *idea*, or a *concept*. In fact, it would not be far wrong to define the concept, as being a *generalized idea, viewed, simply, in reference to the more particular ideas that are involved in it.**

From the nature of the *concept* flow, immediately, all the *laws of thought*, as exhibited in the science of formal logic. By the laws of thought we mean the common *forms* which our judgments assume, independently of the subject about which we are thinking. The regions of intuition and of representative ideas are not pervaded, logically speaking, by laws of *an absolute character*. Much here depends upon the constitution of the mind, and the circumstances in which it has been placed. Once, however, project these images out of ourselves—objectify them—embody them in terms, which are adequately defined by their relation to other terms, and the whole becomes subject to fixed laws, which the mind, by virtue of its very constitution, and on pain of denying its own work, must look upon as *absolute* and *irrefragable*.

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* So J. H. Fichte. Eine Allgemeinvorstellung mit dem Bewusstsein, und der Beziehung auf ein in ihm befasstes Besondere, heisst der Begriff—*conceptus.*

He adds, in the next page (I know not with what accuracy), that it was Hegel who first gave this distinctive view of the nature of the concept, as opposed to a general representation.—*Grundzüge zum Systeme der Philosophie.* Part I., s. 65.

To see how such laws necessarily flow from the nature of the concept, we have only to consider, that every logical term is *thought*, by us, only as containing a certain number of other terms under it. Each term, therefore, looked at apart from actual experience, must be reckoned as a sign standing in a given quantitive relation to other signs. Thus, if we take A, as representing one logical term, we may suppose it to comprehend under it B, C, and D; which would give the three propositions: all B is A, all C is A, and all D is A.*

If we proceed in the same way with B, C, and D, marking down certain *other* signs respectively comprehended by them,—then we should have a more complicated process of calculation, to determine the precise relation of any given sign to any other. Increase the signs still more, and employ terms of every degree of extension, some containing under them only individuals—some species—some genera, and so forth, and the problem again becomes just so much the more difficult.

Now logical thinking is simply a process of calculation like this—only employing words as our ciphers.†

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* Or to use the language of Mr. Mill, A *connotes* B and C.

† See an admirable tract of M. Laromiguière, entitled, "Discours sur la langue du raisonnement, à l'occasion de la langue

Language gives us the signs ready formed—and has determined, by the concurrent powers of human thought and experience, where they should each stand in the order of generalization. This done, the material of logical thinking lies ready before us. All we have to do is to calculate, *numerically*, the various relations we may require to know, as existing between the different terms that language supplies. The laws of this arithmetic are embodied, partly at least, in the science of logic;—but all those laws, however expanded, will be found to be simply deductions from the single fact first indicated, *that the concept, outwardly expressed, is a term, whose whole signification is determined by the other terms, which it numerically involves.* Hence the nature of the proposition;—hence the laws of "opposition" and "conversion;" and hence all the rules of the syllogism itself.* Into these we do not enter,

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des calculs de Condillac." Also, "Mathematical Analysis of Logic, being an Essay towards a Calculus of Deductive Reasoning," by Professor Boole, of Cork. These latter researches promise to be one of the most fruitful of modern contributions to the science of logic; and if fully carried out by the author (as we understand it is to be), to the science of metaphysics as well.

* The following are Professor Boole's six canons, which stand at the commencement of the article published by him in the "Cambridge and Dublin Mathematical Journal:"—

1. That the business of logic is with the relations of classes, and with the modes in which the mind contemplates those relations.

2. That antecedently to our recognition of the existence of propositions, there are laws, to which the conception of a class

as they belong to the science of logic, and not to psychology.

We are now in a position to determine, with some degree of certainty, what is the precise use of the understanding in the whole scheme of the human faculties. The great function which the understanding fulfils, is, *to bring the mind to a fixed point in the process of its intellectual productivity.* With the operations which organically *precede* it, this is not the case. In the sphere of intuition, for example, the mind looks into a *depth of idea,* which it cannot fathom. Glimpses of truths perpetually arise, which strike the imagination, and move the feelings. But, with all this, the object is not completely discerned; and the light, with

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is subject,—laws which are dependent upon the constitution of the intellect, and which determine the character and form of the reasoning process.

3. That those laws are capable of *mathematical* expression, and that they constitute the basis of an interpretable calculus.

4. That those laws are furthermore such, that all equations that are formed in subjection to them, even though expressed under functional signs, admit of perfect solution, so that every problem in logic can be solved by reference to a *general theorem.*

5. That the forms under which propositions are actually exhibited, in accordance with the principles of this calculus, are analogous to those of a philosophical language.

6. That, although the symbols of the calculus do not depend for their interpretation upon the *idea of quantity,* they nevertheless, in their particular application to syllogism, conduct us the quantitative condition of inference.

which it is to be viewed, continually wavers, sometimes being bright and animating, sometimes dim and mysterious. In the sphere of memory and imagination some advance is made towards fixedness of idea; but still that fixedness is not attained. There are, as yet, elements of numberless representations mingling together, in the mind;—so that we can never be sure of reproducing or recovering the same precise image. The process of intellectual productivity might thus go on *ad infinitum*,—lights and shades, might be perpetually added or interchanged, and the representation never attain any clear and definite proportions. Here, then, the understanding comes into play. The inward image having been objectified and fixed by a sign, the understanding draws a limit all round it, defines its exact quantity and quality;—its extension and comprehension;—and thus brings the productive effort of the intellect to a clear and well-defined result.*

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* Der Verstand sprach seine Producte in Sätzen aus; *setzt also fest*, ganz wie das ihm verwandte Gedächtniss sie fest *hielt*. Diese Festigkeit, welche die Gebilde des Verstandes auszeichnet, wodurch sie Stand halten, diese giebt ihm den Charakter der Bestimmtheit und Klarheit, die aller Verschwommenheit entgegensetzt ist. Auf der anderen Seite, wird gerade durch diese Festigkeit das vom Verstand Gedachte, sogleich eine Schranke für ihn, welche den Fluss des Denkens hemmt, und an welche dieses als an ein Hemmniss anstösst.—*Erdmann. Psychologische Briefe*, p. 307.

" The understanding, as we saw, uttered its productions in *sentences;* it *sets them fast*, therefore, exactly as the recollection

In doing this, it attains great distinctness, on the one hand, while it limits the range of thought on the other. In the region of the understanding every thing, in fact, is sacrificed to *clearness of definition.* It matters not how little our real knowledge of a thing may be; the moment it reaches this sphere we must treat it as though our knowledge were *perfect.* We must declare it to contain certain definite characteristic attributes, and proceed as though the whole essence of the thing were concentrated there.

The form in which the understanding utters itself is, that of the *proposition;* and the assertion it makes is equally positive *in form,* whether the *matter* be perfectly investigated, or not. As, however, the essence of the proposition consists merely in affirming a less general term to be included in a more general one, it is clear that there is no new discovery made by it, nor any real addition to our experimental acquaintance with the matter on hand. There is simply a limitation of the thought, a distribution of the knowledge, already gained, into a series of terms, and a method adopted for retaining the proper subordination of one term to another.

held them fast. This fixedness, which distinguishes the products of the understanding, and by which they attain a *stand,* gives to it that character of definitiveness and clearness, which is opposed to all fluctuation. On the other side, that which is thought by the understanding becomes, by this very fixedness, a limitation to it, which bounds the flow of thought—and on which thought itself strikes as upon an impassable barrier."

It is highly important for us to keep the real nature of the proposition clearly before us, inasmuch as exactly the same error which is so fruitful of misunderstanding in the case of *words*, is still more liable to lead us astray in the case of propositions. I mean the error of supposing them necessarily to possess one uniform and unalterable meaning, which attaches to them independently of individual experience. In the employment of a *word*, it is natural for us to consider what the real meaning is, and whether we have grasped that meaning *aright;* but in employing a proposition the mind is apt to be concentrated on the *affirmation,* while it neglects to consider how far it confronts *an adequate idea* under each of the terms.

The error we are now describing clings with remarkable tenacity to those who either wish to gain, or suppose that they have gained, an absolute expression of truth. Having arrived at certain propositions, which appear to them impregnable, they suppose that these propositions must have the same precise meaning to all other minds, and retain it throughout all ages of the world. They forget that the process by which such affirmations are arrived at, is based fundamentally upon our actual experiences; and that in case the experiences of other minds are incommensurate with our own, through a difference either in their circumstances, in their organization, or in their whole historical development, the terms generalized from them will vary also in force, and the *propositions* themselves consequently contain a very different *kind*, and a very different *amount* of signification.

The neglect of these considerations leads to two series of evils. It leads, first, to the habit of clinging to words and phrases, as though the living soul of truth itself depended upon them, and would perish by their abandonment. Hence the eager contention we often witness for mere forms and dogmas, the trust which is placed in the bare profession of them; and the delusion naturally following, that a man's position in the eye of truth depends on his retention of certain verbal propositions, and not upon the actual development of his *inward life*.

The other evil which arises from the above-mentioned error is the encouragement it gives to a sophistical and casuistic spirit, one that makes rectitude depend upon logical inferences, not upon uprightness of mind, and becomes satisfied if the *letter* of the law is not transgressed, however men may crush and wound the spirit. Only admit that propositions can have *one absolute meaning*, and the keenness of the reasoning faculty will soon develop a series of conclusions from it, which will all be regarded, on the faith of logic, as eternally valid, and appealed to as being perfect tests of rectitude and truth. Nay, what is more, dialectical skill will be sure to get *the meaning* out of it, which is most wanted, by a series of tortured inferences, that in form look perfectly correct. This spirit of casuistry is termed in the legal vocabulary of Germany, "*Rabu-*

listik;" i.e., a twisting, torturing and wringing of words and phrases, in order to bring out of them a given conclusion, without *apparently* violating the laws of logic. The results are—a notion that moral right will be secured by avoiding logical error,—a blindness to the eternal distinction which exists between a consecutive use of terms, and a moral regard for truth itself,—and a consequent demoralization of the whole man.

The proposition, we should never forget, cannot be an absolute expression, nor a primary source of truth. Its real service is *explicitness*. It gives us no concrete elements of knowledge; but when such elements are once obtained, it enables us to distribute our knowledge aright, to link together facts and phenomena before lying isolated in the mind's experience, to hold our ideas in correct subordination the one to the other, and thus give to the whole sum of them a logical and systematic value.

The same principle, in fine, applies to the syllogism, which is only a more developed form of the proposition; and, consequently, to a whole series either of propositions or syllogisms. In no case are they, taken alone, instruments of actual discovery, nor can they, under any circumstances, add directly to our fundamental intuitions. All they do is—to assist us in arranging them, when generalized and named, into due subordination; and then to fill up with fresh affirmations and detailed truths the knowledge virtually contained in those general expressions in which we have embodied the mass of our living experience.

Of this nature, for example, is the value of *deductive* reasoning in the positive sciences; where everything is based originally upon the primary perceptions, and where it becomes a matter of the utmost importance to draw out *into detail* all the multiplicity of propositions which are included virtually in the *actual* data.

Wherever a system of philosophy, however, is attempted to be constructed, irrespective of all intuition, its sole refuge is to fall back upon *words*, and to occupy itself with the forms of thought, which have become spontaneously embodied in the interior structure of language. Such is, in fact, to a great extent the nature of the Hegelian and some other abstract philosophies in Germany. Words alone constitute their real subject-matter; and the dialectical skill thrown into them consists in seizing upon the forms of thought embodied in language, and moulding them into a system, which *appears* to map out the entire province of human truth.

Philosophy of this character is nothing more than a subtle species of logic, and logic is nothing more than a profounder kind of general *Grammar*, which grasps the more abstract attributes of language, as the instrument of thought, and leaves out its more specific characteristics. We do not, on this account, deny to such systems a very considerable amount of value and merit, in bringing out, through the medium of language, into plainer terms, the interior structure of human thought; but we are none the less convinced of the delusion under which we should labour were we to imagine these dialectical processes to be the *perfect representations* of the real nature of things themselves.

As all thought, therefore, is primarily involved in immediate experience, we come back to *this,* even after the highest dialectical flights, as the real starting point. All truth has its germ in the *living* individual. Take away this first term, and the rest will be merely an empty abstraction.

Here, then, we close our investigation of the *formal* side of the phenomena of thought; and must proceed next to see how these phenomena pass over to those higher modes of thinking which are included under the term Reason.

II.—REASON.

Looking back upon the progress of the human intelligence, along the course we have already traced, we find, succeeding to the primary impulses of sensation, three fundamental forms of intellectual activity: namely, intuition, representation, and logical thinking. In all three the mind is *active,*—but active in a very different manner and degree. In the first case, the mental activity is roused by the actual presence of some phenomenal object out of itself with which the soul is brought face to face, and which it interprets by the corresponding structure of its own inward nature. In the second case, our mental activity is employed in forming images, *after the reality* as given in experience; images which may remain as objects of contemplation when that reality is no longer present. In the third case the mind's activity becomes wholly independent of the sensible world, and is employed in *fixing* our generalized ideas into determinate thoughts or affirmations.

The object of the first process, accordingly, is a *present concrete phenomenon*; the object of the second, is a mental *representation* more or less generalized; the object of the third, is an abstract *relation*, couched in the form of a universal truth.

Thus, to take an example, Socrates was to his contemporaries, primarily, an object of perception or intuition. This, however, as a mental fact, can no longer exist. The object and the intuition are alike passed away. Socrates, however, was more than a mere object of sense: he was an Athenian; a man of learning, a moralist, a philosopher. His contemporaries, from what they *saw* of these qualities, could form, mentally, a general idea of the *individual*; and out of the materials they have left behind, *we* can form an idea of him also; an idea which we now fix, and represent as they did, by the word Socrates. But, thirdly, we may go a step further, and say, Socrates was a man. Here, it is evident, we stand upon the same level, in reference to our judgment, as did his contemporaries. We have stripped away all the minor characteristics which went to make up the *individual*, and now concentrat our mind upon the one abstract truth, which tells us, in the language of a universal affirmation, *what Socrates was.* Here, then, we see the essential mark of a *thought*, in contradistinction to a perception, or an idea.*

We have, thus, two extremes lying at either end of our mental development, as we have traced it, up to this point, and both giving an incomplete result. In intuition, the mind, in place of exercising any free activity, abandons itself to the subjective influence of the moment, and lives in it unconsciously, as an immediate experience. In the logical understanding, on the contrary, the mind is so occupied in the construction and contemplation of *defined forms of thought*, that it loses sight of the *matter*, and moves in a world of pure abstractions and relations.

We see at once, that this last cannot be the *end* of human knowledge: that if we possess a mental structure, fitted to be an instrument of real research; if, in the early stages of our existence, we unconsciously develop the higher laws of its intellectual being; if we frame spontaneously, in accordance with these laws, an organ of expression, into which we can translate all the results of our mental experience, we are not to rest in mere abstractions, as the final result. It would rather seem, that whilst we have been mentally absorbed in the outward world, on the one hand, and in the inward form of thought, on the other, we are, in fact, preparing for a sphere of intelligence, in which the results of both extremes will be united, in which we shall see the truth that exists in both, as one truth; in which we shall translate the phenomena of nature into the forms of the understanding, and comprehend them both as pervaded by the laws of one universal intelligence. This, it is clear, is the natural point to which human knowledge tends; the organ of which, therefore, we properly designate *the Reason*, as being the mature fruit of our whole intellectual activity.

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* These distinctions will be found admirably drawn out and applied in Daub's "Prolegomena zur Dogmatik," § 31.

To trace the exact character of reason, as a mode of intelligence, let us again refer, for an instant, to the two extremes above considered. In intuition, the mind, having received some given influence from without, is enabled so to idealize the impression made upon it, that it gains a direct and concrete knowledge of the surrounding phenomena. This knowledge is next *reproduced* by the memory and imagination, in the form of inward ideas, some of a more and some of a less generalized description; but *never* of a well-defined and uniform character.

To make our knowledge, accordingly, more fixed and distinct, we next attempt to sever these images from our immediate experience; to objectify them; to contemplate them by an act of free intelligence apart from ourselves. Thus, we first view the world as shadowed forth in our interior consciousness, and then we project *that shadow* out of consciousness, until, by means of language, we create a *new objective world,* in which the inward experience can be contemplated, as though it were an outward reality.

In the former case, we are so mersed in the *object,* that no distinct view of it can exist, beyond a vivid impression of something, undefined indeed, but intensely real. In the latter case, the mind itself has had so much to do with the creation of its object, that the connexion of that object with the real world is not unfrequently lost; so that we occupy ourselves, at length, *only* with the forms, which ought to be filled with it. Thus, first of all, the universe is contemplated without any accompanying consciousness of mind, as the subject; then, next, our own mental images are contemplated as though they were equivalent to the universe. The result in both cases is equally incomplete, and a further development of our intellectual being is manifestly necessary in order to unite the results of both these previous efforts into a higher and more perfect unity. Let us consider in what way this development takes place.

The mind, now become perfectly *free* in its intellectual activity, looks back upon all the other processes of knowledge through which it has passed with a comprehensive and penetrating glance. It can either bring over the *direct* knowledge, which it has gained by means of its intuitions, into the forms of the understanding; or, on the other hand, it can begin with accepting the forms of the understanding as valid for all truth, and then seek voluntarily to *fill* them out with real concrete experience. In this way we come to view mind and nature, as being, at the root, *counterparts* of each other; and proceeding upon this tacit assumption, we use all the power of generalization we have acquired by the understanding, to strip away what is merely temporary, in the multiplicity of our daily experiences, and to retain that which bears upon it the marks of a *universal truth*, valid alike in the sphere of nature and in the region of thought.

The knowledge thus gained will be manifestly higher in the scale of human development, than that either of perception or of understanding. It contains the reality of the one, the ideality of the other; the depth of the one, the distinctness of the other; it gathers up, in fine, all the fruits of our entire mental history, and combines them into a new and superior unity of knowledge, which, when duly carried out, we designate by the term *science*. The knowledge thus gained takes its initiative indeed from the intuitive faculty, and uses, in addition, all the forms of the understanding; it possesses, in fact, no element which is not really contained in these two; only now, by the complete blending of them together, we bring a distinct *reality* into our thoughts which they never possessed before. The sphere of mere abstractions is passed by, and we only use their results to grasp *concrete* truth, in a *universal* form.*

The proper function of reason, then, is to create knowledge, which shall be at once *real* and *universal; i.e.*, to create *science*. Understanding alone can never do this. It can analyze, distinguish, form concepts, construct propositions, weave them into arguments, perform, in a word, any *formal* process within the data furnished to it. But it can never go beyond the barriers of its own definitions; it cannot reconstruct what it has separated; it cannot combine the matter and the form in our conceptions; nor can it ever embrace the idea of there being a *real unity* in the whole superstructure of human knowledge.

Truth, therefore, so long as it is confined within the limits of logical definitions, is necessarily *unconnected* as well as incomplete. When we grasp a truth by the power of *reason*, on the other hand, it implies far more than the attainment of a bare definition of it. It implies that we have penetrated to its very centre; that we can trace its pedigree in the world both of matter and form; that we can regard it as one link in a connected chain, of which we are able to *tell* the antecedents, and *foretell* the consequents; that we can recognise it, in fine, as a *particular* manifestation of some great and universal law, the operation of which we have learned to comprehend and apply.

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* See J. H. Fichte's "Grundzüge zum Systeme der Philosophie," first part, § 153.

Science, however, is not all stamped with the same precise characters; it may have a larger or a smaller amount of direct experience in it, as well as a larger or smaller amount of pure intellectual activity. Reason, therefore, like all the other faculties, will show a regular progression, in which freedom of action, and the power of self-determination, increase with every ascending step. These steps we must now attempt to characterise and justify.

First step.—Observation and Experiment.

The primary function of reason, regarded as the specific organ of scientific inquiry, is *observation.* In observation, the mind acts *freely,* but the primary material of all its knowledge, consisting wholly of outward phenomena, is taken for granted on the mere faith of the *senses.* It is the corresponding process to attention, only with one important difference—that attention is *spontaneous,* and involuntary, whereas scientific observation implies that all the forms of the understanding are brought consciously to bear upon a given series of facts, in order to find out the principle or law of their co-existence. On the one side, therefore, it involves a self-determined activity of mind *ab intra,* while, on the other side, that activity is regulated, as to its whole character, by the nature of the object, *ab extra.* In other words, scientific observation, viewed as a mental activity, is *free;* but, viewed in connexion with the phenomena observed, it is *restricted* to the acceptance of those phenomena, without doubt or criticism.

Observation, in this sense of the term, ranges just one step above *classification.* Classification is purely the work of the understanding (whether spontaneous or not), and does not involve in it, viewed alone, any scientific element at all.

Such, for example, is the case in the departments of natural history, technical botany, and all other branches of knowledge, which stand upon the same platform with them. The only real mental exercise contained in these departments of thought, is that of putting the given phenomena into such *order,* that their abstract qualities are properly tabulated, and grouped together for the convenience of reference, into genera and species. The whole process depends entirely upon formal generalizations and abstractions; there is no attempt to show that these abstractions have any concrete foundation in reality; no attempt to grasp the law of nature under which they exist. If we compare *scientific* botany with mere *descriptive* we at once see the difference. The generalizations, in the latter case, are *real,* not artificial; they follow the movements of nature herself, not the mere arbitrary abstractions of the human mind.*

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* Mr. Dove, in the "Theory of Human Progression," has shown very clearly what the elements of every science must be. Starting from a *given* subject-matter, which he terms the fundamental *noun-substantive,* we have three progressive operations:

Classification, accordingly, even when applied to *real* objects, does not come, properly speaking, under the denomination of *science*, but is only a preparation for it. Science always implies that we penetrate beyond the *particular* facts; that we gain some insight, however imperfect, into the mode of their operations; that we either tell, or endeavour to tell, in any given case, how they have been produced, and under what circumstances they will be produced again.

To observe scientifically, means simply that we watch phenomena in order to trace the *law* which underlies them. Thus we see bodies falling to the earth, and at length discover the relation existing between the time and the velocity of their motion. Once brought within the law of forces, we can assign the precise circumstances of such phenomena, in any future case. We observe, in like manner, the phenomena of crystallization, and discover the exact angle which the crystals, in different substances, strive to assume.

1st, the nomenclature and description of the objects investigated. 2dly, a proper classification of those objects; and, 3dly, an inference respecting their functions, or laws of operation. The first corresponds to the terms of the question; the second to the propositions; the third to the reasoning, or syllogistic process. These three elements are necessary before science can *exist;* so that we may have any amount of mere description, or of mere classification, but can have no *science of observation*, before we begin to *reason* upon the data, and explain the functional laws under which they operate. (See "*Theory* of Human Progression," chapter ii.)

We trace the passage, once more, of a ray of light through a transparent medium, or watch it as it is reflected from a smooth surface, and find out the definite laws of refraction and reflection. In all these cases we perform an intellectual operation quite different from a mere abstract classification. We grasp, in fact, a *general truth* in a perfectly *concrete* form; we comprehend what is the abiding reality embosomed in each fleeting phenomenon; we combine all which perception can give us, with the highest abstraction of the understanding; and thus reach a species of knowledge far superior to either.

The fact, moreover, which gives the peculiar zest and interest to investigations of this kind is, that these laws of nature which we are engaged in observing are, at the same time, the laws of *reason*. The geometry and mechanics which are practically applied in the works of nature are precisely the same as those which reason perceives as *necessary truth;* so that in scientific observation, we are really viewing the laws of our own reason, operating around us in the objective world. This it was which created the excitement of Archimedes, when he shouted the invention of the hydrostatic paradox; this which moved the soul of Kepler, when seeing the planets obeying the order which his reason had gradually marked out for them, he exclaimed, "O God, I think thy thoughts after thee!"*

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* "Experience," says Erdmann, "is incorrectly opposed to reason and thought, inasmuch as it is really the first actualiza-

From these illustrations it will be evident that scientific observation, with the deductions which flow from it, gives us precisely that kind of knowledge which we have assigned to THE REASON, only in its primary form. Wherever we can trace the universal in the particular, the abiding in the transient, the law in the exemplar, there we have human reason performing its proper function; weaving together both elements of knowledge—the real and the ideal; and taking the first step towards the ultimate consciousness of their perfect identity, in a universe which is throughout one vast dominion of reason itself.

The function of reason is still more plainly visible, if we pass from mere observation to *experiment*. There is a rational law which, more or less consciously,

tion of reason and of free thought. What is it that the observer does? He seeks for *a law* in the things observed. He seeks, and, therefore, pre-supposes it; nay, he is so certain of its existence, that he never rests till he has found it. He seeks a *law;* but *this law*, what is it? If you ask the observer, he will generally tell you that law is that which shows itself in all, or in the *majority* of instances. This answer has always been to me a proof that empirical observers, if you speak to them of their doings, always give themselves pains to make them appear more insignificant than they really are; many having gone so far as to call themselves mere mirrors of the outward fact. If you consider the observer more accurately, you will find that his *practice* is contradictory to his profession. The number of instances is, in truth, of no consequence to him, but only the fact that he has discovered *reason* in the object of his research." "Psychologische Briefe," p. 322.

governs all the procedure of positive science. What is it that the investigator is seeking amongst the multiplicity of facts which are passing almost unheeded under his observation? He is not seeking mere unconnected phenomena, but, as we said, some intelligible law; *some mark of reason*, which shall bind all the phenomena together under one governing conception. He traces out, for example, final causes—adaptations of means to ends—modes of operation penetrable to thought, which he knows universally to pervade what would otherwise be dead and lifeless nature. To lay bare these laws he endeavours to surprise nature in her secret operations, removes all the more gross and meaningless elements which prevent him from discerning the working of universal principles, and contrives means for watching their progress with accuracy and forethought. Such is the nature, psychologically speaking, of *experimental* science; a process in which the mind, foreseeing that there must be *intelligible laws* at work, first reads them dimly within itself, and then seeks to recognise them objectively in nature.

Hypothesis is but an extension of the same mental process. In experiment we have only a faint perception of some general laws of reason, and strive to make it more clear, by producing a combination of circumstances, in which their existence and effects in nature may be realised with perfect distinctness. In forming an hypothesis, on the other hand, we strive to read, *definitively*, by the light of reason (aided by all the experience already acquired) *what the precise law actually is, before we have sufficient data either to prove, or verify it.* It proceeds upon the supposition, that our minds contain *implicitly* all the rational principles which operate in the world around us; but that we have not yet traced the harmony existing between them, in all its applications and details. That harmony, in fact, cannot be traced and verified before we have gained a complete body of real experience. In default of such experience, we must make the best comparison we can between the conceptions of reason, and the facts themselves, until, by a series of tentative efforts, we can trace the one as being but the embodiments and individual exemplars of the other.

Thus, in observation, in experiment, in hypothesis, and in all the details of empirical science, we have reason, as it exists *in the mind,* seeking to recognise itself as it exists *in the world.* To do this, the validity of our sense-perceptions is taken for granted,—the forms of the understanding are employed as psychological facts, which we may employ without hesitation or reserve; and by a combination of both we rise to a point, in the development of intelligence, where the concrete and the abstract are combined so as to form *knowledge* in the higher sense of the word,—knowledge, that is, by which we can comprehend the individual phenomenon as the direct result of a *general law.*[*]

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[*] There is another product, which we ought, perhaps, to have noticed as belonging to reason in its more primary form, that,

Second Step.—Reflexion.

In empirical observation, as we have just shown, the mind accepts the *facts* of perception, and the *forms* of the understanding, as data, which can neither be doubted nor explained. As the reason, however, proceeds onwards in its development, and attains to a higher degree of independent action, it refuses to accept *blindly* the intimations of sense, and gets an indistinct idea, that they may *possibly* be unreliable, if not delusive. The course through which it has come to this nascent conviction is, by looking *within*, and

namely, which is termed in philosophy *dogmatism*. In empiricism, we accept the phenomena of the outward world just as they appear, and found a system of general truths upon them. In dogmatism we accept the phenomena of the *inward world* in the same popular aspect, and found a whole system of philosophic truth upon the ideas, which we find already existing there. It is this process, more immediately than the other, to which the term criticism is opposed. Criticism does not admit the validity of any of our internal phenomena until it has subjected them to the closest analysis, as reflection does not admit the validity of outward appearances, except upon a similar investigation instituted by the REASON. *Kant* defines dogmatism, Die Anmassung mit einer reinen Erkenntniss aus Begriffen (*d.h.*, philosophischen), nach Principien, so wie sie die Vernunft längst in Gebrauch hat, ohne Erkundigung der Art und des Rechts, womit sie dazu gelangt ist, allein fortzukommen—

"The presumption that we are able to attain to a pure knowledge based on ideas, according to principles which the reason has long had in use, without any inquiry into the *manner* or into the *right*, by which it has attained them."—*See Mellin's Cyclopädisches Wörterbuch in loco.*

questioning itself as to the nature and validity of its own intellectual operations—a process, which is correctly designated by the term REFLEXION.

The fact, that a great portion, out of the whole mass of humanity, never rise distinctly to the stand-point of reflexion, is no proof that it is not an essential and universal *tendency* of the human mind. Historically speaking, we find, that human thought having advanced to a certain point, *always* begins to turn inwardly upon itself,—to watch its own processes,—and to question the objective validity of its own spontaneous utterances. The earliest oriental philosophies show, that, even in the most distant ages, the thoughtful of mankind had begun to look beneath the surface of phenomena, as the faculties *first* present them, and to interrogate themselves as to the *reality* which they cover and conceal.

In the early Greek philosophy we can trace most distinctly the same reflective process (first in the Pythagorean school, and then in the Eleatic) down to the time of the Sophists, when the most complete speculative questioning had established itself with regard to all experimental knowledge in the minds of those who ruled the intellect of Athens. And from that time to the present, the same results have never been wanting whenever thought has broken loose from the bands of mere authority, and asserted its own independence.

Thus fact and theory both combine to show us, that the primary effect of reflection is *scepticism;* and that this is an inevitable phase, through which the reason has to pass in its progress towards perfect freedom and independence.* Scepticism, in its normal appearance, is simply a suspension of mind between two different bases of conviction respecting human knowledge. The mind, which has trusted implicitly to the data which present themselves spontaneously to its attention,—whether by means of the senses, or by verbal tradition, or through any other medium, cannot divest itself of this trust all at once. While the reflective faculty, on the one hand, impels it forward to seek a deeper foundation for truth,—the power of old association prevents it from leaving its former moorings, except by very imperceptible degrees. The period of mental experience, accordingly, which intervenes between *distrust* in the old foundation, and the clear discovery of the new, must necessarily be, to a certain extent, a period of *scepticism*;—a period in which the mind, whatever it may hold respecting the *possibility* of human knowledge, feels no sure confidence in its *actuality*. All transition periods, accordingly, in the mental development, whether of an individual or of a people, are of necessity marked by a *strong sceptical bias*,—which, like an epidemic, destroys the life of many, while it is preparing a higher organic condition for the rest.

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* Nowhere has this been more eloquently shown than in M. Cousin's "Cours d'Histoire de la Philosophie," Leçon IV. to XII.

See also, "Der idealistisch-realistische Prozess des Bewusstseins," by Dr. J. Kiesel. (Würzburg, 1852.)

Scepticism, however, is a condition in which no man can *willingly rest.* The power of reflexion, impelled by all our natural instincts after truth, soon gets beyond even the temporary necessity of unbelief, and sets to work upon the more pleasing office of reconstruction. The old phenomenal foundation being relinquished, we begin, ere long, to catch a distant view of some deeper principle, to which reason, in its demand for solid evidence, may have recourse. This principle, however, can only be verified by a thorough research into the whole process of *cognition,*—an analysis of its various elements,—and of the methods by which it seeks to accomplish its proposed results. Until this is done, we are not assured how far our knowledge can safely extend, what lies within the sphere of the faculties, and what without; or how much of the final result we must attribute to the objective *material,* and how much to the subjective *form.* This process has been designated in the history of philosophy by the title of "Criticism."

The two most illustrious examples of human reason, in its critical phase, are Locke in our own country, and Kant in Germany. Both of them came after a period of contest and scepticism, in which the human mind was beginning to doubt of the certainty of truth altogether; both, therefore, started with a *speculative* distrust of all knowledge, *as it then existed;* both proposed a critical inquiry into the nature and methods, of the human understanding; and both ended by defining the principles, on which a new superstructure of scientific truth might be erected. That Locke's philosophy made a *prodigious step* in the right comprehension of the ground-principles of human knowledge, few, even of his opponents, can justly deny: and that Kant, by his searching criticism into the whole sphere of human cognition, made another step equally in advance, is likewise admitted, as far as I am aware, by every one who has taken the pains to follow that criticism successively through all its stages to its ultimate conclusions. The light he cast upon the combination of the matter of our knowledge with the necessary forms of thought; the view he gave of the co-operation of the objective factor in all our conceptions, with the subjective; the manner in which he elucidated the regulative principles of reason, and marked off the proper boundaries of truth—all remain a lasting service to man, a *κτημα εις αει*, which nothing but the most penetrating genius could have afforded.*

* There is a very prevalent opinion in this country that the writings of Kant are obscure and mystical. This opinion, I am bold to say, is wholly due either to the entire want of philosophical culture in the minds of popular writers who undertake to sit in judgment upon him; or to a positive ignorance of the meaning of the terms he employs. No one, I believe, who has taken the most moderate pains to read the works of this greatest of modern critics *intelligently*, will hesitate

In bringing forward these two instances, I am not forgetting that we have now to do with *psychology*, and not at all with metaphysical systems. My object in doing so is simply to give the most striking examples which history presents of *reason* in the reflective character. The efforts of these two great and penetrating minds to look beneath the phenomena of our ideas, and the utterances of their age upon them—to test the truth of what is popularly termed common sense and common opinion—to strip words of their outer guise, and enter into their real meaning—to define the powers and the extent of the human faculties,—all alike show, *in the most intense form*, what are the problems with which every individual mind has to struggle for itself in some form or another, when the reason within has once ceased to rest with entire satisfaction upon its first traditionary convictions.

The power of reflection, having thus performed the task of verifying the validity and criticizing the range

to agree with me in affirming that a more clear, steady, penetrating, dispassionate *unmystical* mind, is not to be found in the whole circle of modern literature. His style is *incomparably* more lucid than that of Locke;—his use of terms far more defined, and his meaning grasped, on the whole, by a less stretch of thought. All he demands (which is surely not very unreasonable) is, that you shall learn the force of his terms, at starting, and then keep to their proper meaning throughout.

of the intellectual faculties, next applies the principles it has brought to light in order to investigate anew the various departments of objective truth.

The departments to which the reflective power is thus applied may be classified under three heads. First, the region of existence, or the *true*, in which the intelligence is the leading faculty that comes into play. Secondly, the region of duty or the *good*, in which the will takes the predominant place. And thirdly, the region of order, and harmony, and *beauty*, in which the feelings are brought principally into exercise.

Of these departments that of existence, particularly in relation to the material universe, occupies the foremost rank, as comprehending the phenomena which most naturally invite and almost demand research. With the light now shed upon the intellectual faculties, we do not, on the one hand, accept all the phenomena of sensation as wholly inexplicable facts, nor, on the other hand, do we despair of arriving at further truth concerning them. We first look to the whole process, by which the primary impulses made by the world without upon the nervous system become converted into perceptions and ideas, until, thus transformed, they mingle up with the whole mass of human thought. We discover in this way that, even when tried by the light of the severest criticism, we are undoubtedly conscious of a *conflict* between the world and the soul—between the forces of the one and the faculties of the other,—and that, when construed by the power of reason, all our perceptions are found to be revelations of the very laws of nature, which in this way become penetrable to human thought. Starting from this truth, we begin to study nature herself under a new aspect—to comprehend her laws not merely as generalizations of material facts, but as principles of reason, which hold good independently of any particular body of illustrative facts whatever—principles which we know to be as true in every planet and every possible system of the universe as they are in our own.

To enter into any explanation of the philosophy of nature, however, is not to our present purpose; we merely adduce sufficient to illustrate the power of the reflective reason, in affirming principles by which our deeper comprehension of nature has to be guided.

Not only does reason, however, in its reflective character, furnish principles for *physical* investigation, it furnishes also, as we just affirmed, principles relating to *moral action*. Unsatisfied with following the mere impulses of the mind, with regard to right and wrong, it investigates the nature of ethical truth, shows where in the whole scheme of our mental powers it originates, and develops the laws by which our conception of duty is to be regulated. This is termed, by Kant, the practical reason; which we need not, however, to regard by any means as being generically different from the theoretical, but simply as the power of *reflection* applied to the explication of moral phenomena.

In the same way does reflective reason, when applied to the manifestation of beauty and sublimity—of order and design in the universe, develop the principles by which our judgments are regulated in regard to, first, the æsthetical sphere of truth, and then, finally, in regard to those teleological ideas on which the fundamental principles of natural theology are based.*

All *these*, as well as the above-mentioned subjects, lie beyond the reach of mere observation. Reason, in its simplest and lowest form, does not grasp them; it requires to be raised to a higher potency before it can look beneath the laws of mere phenomena to the rational principles in which those phenomena themselves originate.

Hence it is, that although the human mind contains essentially the germs of all these problems, together with every possible solution of them; yet it is not amongst the mass of mankind (absorbed as they are in every-day life) that the power of reflection comes *prominently* to view. All, indeed, who think at all, pass in some form through the fated struggle of humanity with the great problems of nature and destiny, though it is comparatively in *few* cases that it ends in the unaided conquest of intellectual satisfaction. To all, therefore, who meditate earnestly, the necessity of reflection sooner or later will come, at all events, in the religious, if not in the philosophic form; thus verifying *at first* the truth of the proverb, that he who increaseth knowledge increaseth sorrow, though that very sorrow is *afterwards* the portal to a higher and a nobler state of satisfaction and peace.

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* The development of these reflective judgments was that aimed at by Kant in his "Kritik der Urtheilskraft." As the Critick of pure reason gave the principles by which the *intellectual* faculties are regulated, as the Critick of the practical reason gave those relating to the *will*, so this third research was intended to develop the principles of judgment involved in the higher *feelings* or *sentiments*. The three formed altogether a noble attempt to carry the principle of criticism into every department of the human mind, and every sphere of human truth.

Third Step.—Speculative Thinking.

We stand now on the threshold of the very highest and most explicit form of the human intelligence—that in which thought becomes, both as to its matter and form, *perfectly free*; in other words, in which it is influenced by nothing which lies beyond the bounds of consciousness itself. The starting point and the immediate material of scientific research is widely different, according as it takes the form of induction, of reflection, or of speculation. In the first case we start from outward facts, as given in intuition; in the second case, from ideas or notions, as given in the representative faculty; in the third case, from thoughts or concepts given to us by the understanding. Let us show this somewhat more explicitly.

In observation, induction, experiment, and all the other processes of empirical investigation, we accept the data of experience *exactly as they present themselves,* and try to find what evidences of design and intelligence lie within them as the law of their outward manifestation.

In reflection, we subject these empirical phenomena to a criticism which is based upon a deeper knowledge of the intellectual faculties, and which, therefore, instead of admitting the objective truth of phenomena as they present themselves, attempts to decide how much of them is owing to the peculiar constitution of the perceiving mind, and how much to the outward fact. Here, it will be seen, the immediate object of reflection is not the outward phenomenon itself, but *the representations or ideas we form of it,* constructed partly from the external fact, and partly from the nature of the human understanding.

Lastly, in speculative thinking, we lay aside the whole *à posteriori* element, and start simply from some fundamental *thought* as it exists in the human consciousness, constructing the whole science by a dialectical process out of that thought, as the *germ* in which it is all implicitly contained *ab initio.**

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* The Hegelian school has accordingly attempted to show that speculative philosophy consists wholly of *pure thought*—

Thus, to take the science of theology as an example, we may accept the documents, the traditions, the forms of worship, the religious notions current in our age as fixed *data*, and arranging them before us, attempt to grasp the connexion of thought, by which they may all be bound together into some intelligible system. This is simply a science of observation and induction, accompanied generally with a large amount of hypothesis, and giving as its result a system of truth well adapted often to the popular mind, but not by any means satisfying the demands of philosophic *reflection*.

Dogmatic Theology may be built, however, secondly, upon a more *critical* and *reflective* process. In place of accepting the documents of our faith and current modes of apprehension as fixed data, we may subject both to a penetrating process of criticism. In this way we may discover more accurately what was the primary meaning attached to words, phrases, and doctrines; how they have been modified by the spirit of every age; and how the peculiar intellectual and

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that reason and existence to it are absolutely identical. (Denken gleich Seyn.) The question, however, which they ought to have considered is, *how is the thought itself from which they start generated?* If it come by the whole process we have described, beginning with experience and ending in pure idea, then philosophy *cannot* be wholly severed from *intuition*; on the contrary, it must derive its primary material from that source.—See on this point Trendelenburg's "Logische Untersuchungen," particularly the chapter on the dialectical Method.

religious elements of the present, uniting with the influence of written documents and with the religious forms of the past, produce a given intellectual result in the religious communities of our own day. Taking, then, the actual *contents* of the religious consciousness as our data, we may build our theological system upon them; just as we before showed, in the case of other sciences, that reflection assumed as its object, not outward facts themselves, but the representations or ideas we form of those facts, by the combined action of the outward data and the inward faculties.*

Lastly, we may at length pass beyond this point of view, and, disregarding outward facts altogether, may sink down into our own interior consciousness, grasp the *Divine idea* as it exists *there*, and from it, as the starting-point, deduce a connected system of truth, in which the Divine attributes, the creation of the world, and the problem of human destiny, all hold together as the dialectical expansions of one great and undivided THOUGHT.†

With these few explanations kept in mind, as to the sphere of speculative reason, we may without difficulty show its *nature*, its *universality*, and its *necessity*.

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* The imperishable service which Schleiermacher performed for scientific theology was to point the way in which a complete dogmatic system might be founded on the *living consciousness* of the faithful. In Daub's "Prolegomena," Schleiermacher's principles will be found still more scientifically developed, as also in Rothe's "Theologische Ethik."

† See Introduction to Rothe's "Theologische Ethik."

1. With regard to the *nature* of reason, in this its highest development, we may describe it *as that in which thought has* ITSELF ONLY *for the object of its research*. Outward facts disappear; inward representations of them are set aside; we begin simply with *thought itself*, and investigate only what that thought implicitly comprehends. The sole thing to which we are bound is, the content of the consciousness on the one hand, and the laws of dialectics on the other. The former gives to speculative science all its *matter;* the latter lend it all its *form*. Beyond this no philosophical analysis can reach; the deliverances of consciousness and the laws of reason are the *ne plus ultra* of mental analysis; and as in this case thought has only to deal with itself, we may regard it as having reached the highest possible sphere of *free activity*.

2. To obviate the objection, that this is not an essential step in our mental development, we may point for a moment to its virtual *universality*. We do not mean that every individual mind can reach the stand-point of speculation, but that the human reason, in every age, as seen upon the broad platform of humanity, shows the constant tendency, and puts forth instinctive effort to attain it. More commonly than not, we find it mixed up with *theological speculations*;

which, from their very nature, tend to develop themselves into a connected philosophy of the universe. At no period, however, do we find the human reason, viewed as a whole, either raised above, or sunk below, the internal necessity of thinking speculatively upon the great problems of man's origin, nature, and destiny.

The Oriental nations, *e.g.*, from the earliest times were under the influence of some reigning *theosophy;* that is, they attempted to grasp the Divine idea *in some peculiar form,* and construe the entire universe from that point of view. Frequently, indeed, the attempt ended in Pantheism; but Pantheism, be it observed, is *itself* a speculative system, which, even to the present day, occupies, if it does not satisfy, the reason of perhaps the largest section of mankind.

The Mohammedan mind, again, has ever possessed, not, indeed, *formally,* but yet *really,* a speculative system of the universe. Starting from the idea of God, as the conception of a fatalistic, absolute, all-deciding *will,* it has drawn all nature and all events into one iron system of predetermination, every step of which is but an expansion of this primary conception of the Divinity into its practical and theoretical details.

I need hardly say how many and various have been the attempts, in the Christian world, to satisfy the reason by means of a *Christian philosophy,* and this, too, even where the word philosophy is unknown, or, if known, perchance rejected and despised. Where, for example, can we find a more striking example of speculative reason than in the entire Calvinistic system,—a system which, starting from a given form of consciousness, in reference to the *Divine nature*, draws everything—the Word, the ordinances, the creed, the character—into the irresistible stream of its dialectical procedure, and moulds them, in the end, to perfect harmony with its own conclusions. Speculation, however unnecessary to moral guidance or to the possession of religious life, there *will be*, so long as the human reason retains its present constitution; so much the more important is it that we should become well aware of its procedure, and see that it starts, as far as our present insight can reach, from the right foundation.

3. The *necessity* of speculative thinking arises from the instinctive yearning of the mind after *unity* in all its knowledge. This desire for unity is, in fact, the very mainspring of all intellectual progress, from first to last. It is this which renders us first dissatisfied with the *multiplicity* of sensible phenomena around us; this which leads us next to classify our experiences, and to form both generalizations and abstract ideas. Having carried us thus far, it impels us to seek the groundwork of our ideas and convictions in more general principles, and never rests content till it has brought us face to face with some *definite system of truths*, all springing, logically speaking, from one sole foundation. The highest point of speculation, accordingly, is that in which *thought* and *existence*, formally

considered, become one; and the logos, or reason, as an emanation of the Divinity, reigns alone, at once the *essence* of all *being*, and the *content* of all *thought*. Every complete system of philosophy, accordingly, rests in GOD, as its highest idea and its final aim. To see the Divinity as the beginning, the middle, and the end of all things, is the culminating point of all human thought. Thus it is the goal, not only of providence, not only of redemption, but also of the no less Divine laws of reason itself,—that God should be ALL IN ALL.

The process of reason, then, may be described, in conclusion, as a perpetual progress from the real to the ideal, and from the ideal back again to the real; at each step becoming more replete with higher thoughts of truth and existence. This progress takes its start from the ordinary intimations of the senses, and tries to find out the general laws which they tacitly involve. It soon becomes a matter of doubt whether we do not attribute more to the outward reality than actually exists there,—whether *thought* does not go beyond the corresponding *being*. In proportion as the reason pursues this train of investigation, it falls into one degree of scepticism after another, until a doubt is thrown over the entire reality of human knowledge.

Here, however, a regressive principle soon sets in.

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The reason takes its stand, at length, upon the validity of consciousness. The facts of our internal life, it sees, cannot, at all events, be denied; so that, even if we have no confidence in the reality of the universe, we must at least admit the reality of a series of impressions and ideas corresponding to it. (Idealism.) But once having got so far, the regressive process still continues its course. Of what kind, it asks, can a perceptive faculty be, which perceives nothing; or representative faculty, which represents nothing; or a power of thought, which thinks nothing? Admit, if you please, that matter, in the ordinary sense, is, *rationally speaking*, a delusion, yet there must be a system of *forces* in the universe, corresponding to the powers of the human soul,—which form an objective existence, standing parallel with the world of thought, and participating in the same laws.

But how can such finite existence be possible? Clearly in the same way as finite thought is possible, namely, as an emanation at once from the infinite being and the infinite mind.

Here, then, reason returns virtually to the same realistic point from which it started. It holds once more the validity of the senses, the actuality of the world, the reality of all its phenomena; only it holds them in a higher form, and views them from a loftier point of view. In place of making them the final barrier, on which our powers of thought stumble and break, it sees them all as the unfolding of the infinite essence itself, and reads in them, as exemplars, the laws of *eternal reason, beneficence, and love.**

Thus, as we said, it brings us at length to that supreme point, where we behold God in all things, and see all things in God.

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* See "Der Idealistisch-Realistische Prozess des Bewusstseins," by Dr. J. Kiesel.

CHAPTER VII.

METHODS OF VERIFICATION.

> La question de l'état présent de nos idées et celle de leur origine sont deux questions distinctes, et toutes deux nécessaires pour constituer une psychologie complète. Tant que la psychologie n'a pas parcouru et épuisé ces deux ordres de recherches, elle ignore les phenomènes de l'entendement, car elle ne les connaît pas sous toutes leurs faces; elle n'a pas leur secret.—COUSIN.

WE have now traced all the prominent phases of man's intellectual existence, from the primary impulses of sense, up to the highest exercise of reason. With reference to the method pursued, we have followed the universal analogy of nature in the different spheres of organic life. Wherever life and organization exist, there is also development, and growth; and as the mind of man stands in immediate connexion with an organized frame, and operates *through* it, we naturally look for it to partake of the general characteristics which mark every known species of organism. Guided by this analogy, we have shown a succession of phenomena, each standing above the other in the scale of freedom and intelligence, and leading, by almost insensible steps from a state of almost passive receptivity, up to the most free and constructive exercise of *reason*.

Every successive phase of mental activity to which we ascend, remains, when once realized, a *continuous element* in our intellectual being, and then reacts upon those which have gone before it. Thus our intuitive life is, at first, very feeble and circumscribed; as the higher intellectual powers however develop, they react upon it, and thus afford it a culture and a range which, without their aid, it could never have reached. This must be kept in mind, whenever our theoretic ideas *appear* to go before our intuitions. Such cases do not, in fact, disturb or disprove the logical order of our mental development; they merely add some complication to the phenomena, out of which we have to draw our scientific generalizations. It will still hold good, that, though the *chronological* order of procedure may be sometimes disturbed; though the forms of truth may, here and there, be learned by positive inculcation, prior to the intuitions being developed, yet the *logical* principle of development is still the order of nature, and is alone available in the scientific analysis of our ideas.

The analogies we have followed in respect to the method of investigation, are not presented, however, as though they amounted to a *demonstration* of that method.

Analogies will often serve as guides, never as proofs. The psychological principles we follow must always be rigidly tested by experience, before they can be assumed as perfectly valid. If true, they ought to stand the test of experience in every possible form. They should, on the one hand, be applicable to all the facts and phenomena of human life; and they should present, on the other, a valid solution of the main problems which lie naturally within their own sphere. We shall point out, then, in the present chapter, some few of the *verifications* which are afforded by an appeal to facts on the one side, and by the solution of important psychological questions on the other.

I.—VERIFICATIONS AFFORDED BY AN APPEAL TO FACTS.

1. And, first of all, it is most natural that we should look to the phenomena of the *individual* mind,—phenomena, which every one may, by due consideration, test for himself, both by watching the history of his own consciousness, and by observing the indications presented by others around him.

That our own mental history, and that of every other individual, begins with the predominant influence of the *senses*, no one can reasonably doubt; for even, on the hypothesis of the existence of innate ideas, still we know, as a fact, that such ideas could not be called really into consciousness, except from the influence of external stimuli. Without such stimuli, the brain itself remains torpid; and with an inactive brain, it is impossible, as we are now constituted, *consciously* to possess any ideas whatever, whether innate or not.

If, secondly, we observe the operation of the mind after these stimuli of the senses have been applied, we find that its intellectual state is not one of definite thought, or even one in which it comes to the consciousness of any well-defined mental representations. The mind of the child goes most obviously through the stage of intuition; it learns, at first, by means of the senses; and is long occupied in experimenting with external objects, and reading their intelligible characters, previous to the time when it generalizes them, re-embodies them in distinctive signs, and *thinks* them for himself. Hence the use which is uniformly made of *perceptive* methods in the infant-school;—methods which we almost instinctively see to be the only kind of instruction adapted to that early period of mental development.

After the perceptive age is passed, we find that the memory and the power of retaining images next become the most prominent of the faculties; connected at the same time with an *extraordinary* facility in the acquisition of words, and the association of them with the appropriate idea. Compared with the powers of a child (in this latter respect especially) those of the adult are usually insignificant. Advancing childhood is *the age* in which the whole energy of the individual becomes busied with the construction of inward images, and the acquisition of outward signs, to express them. So important is it, indeed, that this work should be accomplished *at the right time*, that any direct hinderance to it then, can never be wholly replaced in after-life; or replaced, in any degree, without labour a hundred-fold greater than that with which the power might have been originally acquired.

It is only, in fine, when the mind verges towards maturity that the powers of abstraction and generalization become fully developed; and, even after that, the mind can only achieve its conquests in *science*, by a steady and gradual progress. Most thinking men know, by experience, how necessary it is in acquiring knowledge to proceed, step by step; particularly in passing over from the sphere of induction to that of *reflection* and *speculation*. Mere keenness of understanding is of little service *here*. Each higher point of view, from which we gaze upon truth, must be achieved by a process of gradual enlightenment, during which we *think ourselves*, as it were, into a new intellectual region, and learn to view all facts and all ideas, from this loftier platform.

Thus each particular season of life, up to the full bloom of our maturity, exhibits to us the culmination of some peculiar sphere of mental activity, the whole series of which corresponds in all the general outlines, with the scheme we have presented of our organic mental development.

This may be most clearly seen by selecting *instances*, in which the intuitive powers have been so strong as to render the distinction between them and the subsequent processes of thought, perfectly obvious and traceable. Such an instance was Mozart, who, at five years of age, unconsciously applied all the principles of the most advanced school of harmony. Such was George Bidder, who, when equally young, could perform the most surprising calculations, without being able himself to follow the steps through which his mind passed, in order to reach the result. Such was Salvator Rosa, and many other sons of genius, in the arts of painting and sculpture. These *prodigies of intuition* always have manifested their powers most vigorously in early life;—as they grew up their perceptions have rarely become keener, but have merely embodied themselves in mental representations, and artistic efforts; until, at length, they are reduced, after mature thought, to *scientific rules.*

The moral and religious spheres of human life afford, also, a very wide field of observation upon this same question. If we watch the progress of the individual mind in relation to these subjects, we find that an awakening of the inward *feelings*, in reference to duty, virtue, reverence, responsibility, eternity, &c., forms the fundamental basis of our entire mental *sympathy* with moral and religious truths. *Forms* of moral and religious truths, indeed, we may learn and store in the memory, previous to taking any real mental interest in them; but if such truths are to be a part of our inward life, they must enter *through the intuitions* into the soul, and, after that, express themselves articulately in connected propositions. In the case of the child, indeed, this is the only point at which he gains any real mental contact with such subjects. To moral and religious *sentiment* there may be, even in very early life, the most vivid awakenment; but there can be no real intellectual grasp of the formal truths, either of ethics or theology. Thus, in every way and upon every subject, we may find new illustrations of our psychological principles, flowing from the phenomena of *individual life.*

2. But we may appeal next to the facts connected with man's intellectual development on a broader scale; and consider how far *they* may illustrate and verify the same mental principles. The life of a nation bears an obvious analogy to that of the individual. In a very early and infantile state of society, the human faculties are not urged forward to their maturity. Humanity itself, as it exists there, is living the life of an infant;—it is guided almost entirely by sense and instinct, having no public principles of truth as yet either unfolded or recognised by the common understanding of the nation.

The next period of national life brings us into a world of poetry and mythology. Here the æsthetic feelings become more sensitive; the spontaneous intuitions of nature remarkably energetic; and the imagination begins to rule the whole man, nay the whole national life;—pouring itself forth, with the utmost productivity, into the various creations of art, poetry, religion, and symbolical institutions.

Thus, then, humanity is seen to pass through the age of poetry and mythology *nationally* as well as *individually.* Where is the child on the one hand, where the infant nation on the other, that has not its cherished myths and fables? Before the power of seeing truth in the abstract arrives mankind can have no choice but to give concrete and living forms to its ideas. The ferment of mind which goes on within;—that perpetual stimulus which the sense world applies; —that combined play of intelligence, and emotion, of æsthetic feeling and religious reverence, which every child, as well as every nascent state of civilization presents, *must find somewhere its field of effort and enjoyment.* And in no other way, as yet, can it attain satisfaction, except by laying hold of imagery, in which that inward struggle of the faculties is, as it were, objectified, and where its own *self* is seen reflected in its own *productions.* To the child of imagination, and to the childhood of early nations, the mythical element is equally *natural,* and equally indispensable.

The age to which we have now alluded is chiefly marked by an entire *fusion* of all the elements of our mutual nature, into one motley result. The *separation* of those elements—the distinction of intelligence from feeling—the severing of imagination on the one hand from abstract principles on the other, all this marks the rise of another era, in a nation's development;—that, namely, which corresponds with the sphere of THOUGHT, *properly so called.* This separation is effected by the understanding (the critical and analytic faculty), and is marked by a decided tendency to metaphysical speculations. When these periods have run their rounds, then the age of positive science commences,—that in which the reason gathers up all the results of the other faculties, and employs them for the direct investigation of truth.

In Greece, to take a single example, the age of Homer and the Cyclic poets represents the *intuitional* era, that in which nature was gazed on with all the freshness of early childhood, and its influence on the heart and feelings embodied in immortal verse. The period, from Pythagoras to Plato, represents the development of a *metaphysical* age; while the labours of Aristotle and his school, down to the disintegration of Greek nationality represents the *scientific.* Although other nations will undoubtedly show many variations, and numerous disturbing causes will have to be taken into account, yet the main current of civilization, in every distinct nationality, nay, in the entire progress of humanity itself, will be found to flow, intellectually speaking, in the same main course. To demonstrate this, is the office of the *philosophy of history;* a sphere of research which is daily becoming of more importance, and to which we must refer our readers for the detailed facts, by which the above position may be illustrated and verified.*

3. There is yet another class of facts which bear very closely upon the psychological system we have expounded, those, namely, which relate to the growth and expansion of the various departments of human knowledge. Human knowledge is the objective counterpart of the human intelligence; the progress of that knowledge, therefore, will give us an external representation of the progress of the *inward principle* from which it emanates. Every distinct branch of knowledge, according to our view of the relation of the faculties, ought to take its start from the impulses experienced through the senses. Consequent upon these impulses, it ought to assume the form of intuition, expressing itself in wonder, admiration, and emotive contemplation of the objects presented. Next, it should clothe itself in the form of *ideas,* those ideas taking the hue of the productive imagination, and

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* The most remarkable work on this subject in modern times, from the philosophical point of view, is unquestionably Hegel's "Philosophie der Geschichte." An admirable treatise (the work of many years' labour), from a more historical point of view will be found in a recent publication by *August Gladisch,* "Die Religion und die Philosophie in ihrer weltgeschichtlichen Entwickelung und Stellung zu Einander."—(Breslau, 1852.)

uttering themselves in the language of mythology and poetry. After this, the period of *abstraction* should ensue, in which the truth embodied in poetic forms is separated from all sensuous representations, and moulded into harmony with the more rigid laws of logical thinking. Lastly, we look for our knowledge to become rational and scientific, showing itself at once abstract and concrete; generalized in form, but applicable to all the details of real existence.

Let us take, then, any one of the complete sciences, such as astronomy, and consider the steps of its progress, from the time at which it first engaged the attention of the human mind, down to its nature development. Astronomy began in *wonder*. The Chaldæan shepherd first gazed with awe and admiration upon the starry heavens, contemplating with a mixed consciousness of the sublimity and harmony of the scene, their "solemn paces and well-ordered movements." As the age of wonder subsided, the *imagination* became busy with the phenomena thus presented, especially amongst the more ideally-constituted races of mankind. The heavenly bodies were accordingly represented under the then ruling conceptions of human life, and assumed the names of gods, or of heroes, transferred from the labours of earth to a position of eternal glory amongst the constellations above. Of this period all our present astronomical phraseology bears the most obvious traces.

Soon, however, the *understanding* began to strip the whole science of its poetic garb. It began to represent the concrete phenomena under general ideas, and to form abstract theories, by which they might be accounted for and explained. At length astronomy was inaugurated as a *positive science;* the magnitudes, motions, and other appearances of the heavenly bodies were reduced to mathematical expressions; and, after many attempts and many failures, the very objects which at first struck wonder into the soul of the wandering shepherd, became elevated into a connected science, in which every fact can be viewed as the result of a general law, and the whole series of these facts, in time past and for time to come, can be laid bare to the eye of the human *reason.* Neither has reason yet done its whole work; for creation itself will have to be traced, by reflection and speculation, still upwards to its ideal in the productive forms of the creative mind.

That the sciences go through a *theological,* a *metaphysical,* and a *positive* form, as M. Comte has endeavoured, with no small amount of genius, to prove, is, according to our view, partly true, but also partly false. The actual stages of human knowledge, in fact, can only be rightly appreciated, or correctly represented, from a psychological point of view. Psychology shows us that there will ever be, previous to the distinct development of *thought,* a blending together, in one crude combination, of all the diverse elements of mental activity, which we term feeling, imagination, and reason. The intellect, just beginning to awaken from its slumbers, longs to comprehend the causes of all the wondrous phenomena which the senses reveal; the feeling of reverence, blending with this desire, gives a religious tone to physical inquiry, which must always last, *so long as primary and secondary causes continue to form one undivided object of research.*

The severing of these elements from each other, on the contrary, is due to the abstracting power of the understanding, which, when brought into energetic action, will always inaugurate a *metaphysical* era. Then, last of all, the union of the intuitive with the abstract, in the maturer stage of human development, will produce *positive* science.

So far, we imagine, M. Comte is correct; but he has altogether overlooked the age of imagination, which is, in truth, far more distinctive than that of theology; neither has he taken into account the fact, that theological and metaphysical elements run, more or less, through every age,—and through none more than the present. The real statement of the case, we conceive, is this: that when the analytic understanding comes vigorously into play, a *separation* is effected between the product of the religious and æsthetic faculties, on the one side, and the progressive movement of scientific ideas, on the other—a separation which is only overcome by the highest exercise of reason, where knowledge, expanded into its full proportions, is carried back to the infinite source from which it first emanated. M. Comte's facts, accordingly, so far as they are correct, instead of being based upon the mere empirical assertion of a fixed law of social evolution, may find at once their explanation and their correction in those psychological principles, which all our experience of mind, whether objectively or subjectively considered, tends equally to demonstrate as valid.

Having thus indicated the principal classes of facts, from which verifications may be sought, we must leave the student of psychology to follow them out, into their minor details, at his leisure.

II.—VERIFICATIONS AFFORDED BY THE SOLUTION OF MENTAL PROBLEMS.

Having glanced now over some of the more important facts, which illustrate and verify our psychological principles, we proceed next to show how the same principles approve themselves by the light they shed upon important psychological problems. Amongst these problems there are two, which stand out with especial prominence; and it is to these two alone that our attention will at present be directed. The first is that which relates to the *origin of our ideas;* the second is that which relates to the nature and possibility of *absolute and necessary Truth.*

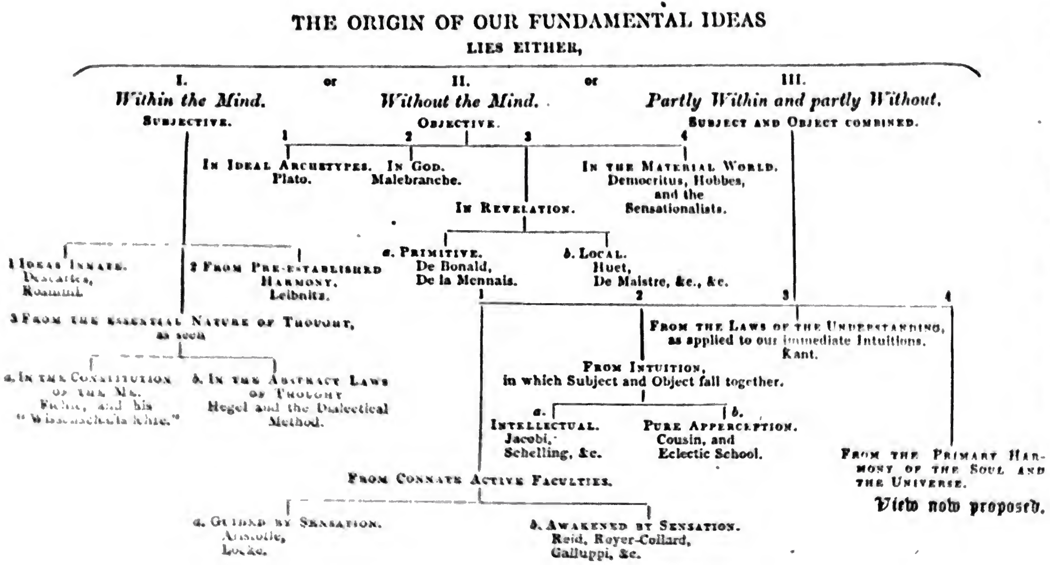
A. On the Origin of our Ideas.

The question as to the origin of our fundamental ideas has always formed one of the principal points of psychological discussion, from the earliest times to the present hour. Plato maintained their real objective existence, as being the archetypes of all pure and scientific truth. Aristotle, on the contrary, derived them all, as to their matter, from the senses, but showed that the reason was necessary to bring them into an abstract form. Hence their classification into nine categories, which were intended to be simply the "*summa genera*" of all those individual phenomena, of which anything whatever can be predicated. Descartes affirmed them to be *innate*, engraven by the Divine finger upon the tablet of the human soul. Hobbes, and the wide-spreading sensational school, of which he was the earliest among modern representatives, traced all human ideas (even the most abstract and recondite) to direct material impressions made upon the organs of sense. Locke deduced them from *sensation* and *reflection*. Leibnitz from the constitution of the *intellect*.

Most of the modern writers on psychology in France and Scotland derive our fundamental ideas from certain *innate faculties*, which, when duly brought into play, are naturally calculated to excite and originate them. On this ground, both the Scottish philosophy and the French Eclecticism have combatted the conclusions of Locke; *primary judgments*, or principles of common sense, being the organ of the one, and *pure apperception* of the other.

In Germany, the schools of Jacobi and Schelling have grounded our fundamental ideas upon *intuition;* those of Fichte and Hegel upon the absolute nature, either of *the me*, or of *thought* itself. Kant stands colossal in the midst of the whole, presenting his complicated but wonderfully penetrating method of criticism, in which he reduces all our primary ideas to two forms of intuition, time and space; to four main categories of the understanding; and to three regulative principles of pure reason.

These and other cognate views respecting the origin of our ideas may be classified in a tabular form, as represented in the following scheme :—


THE ORIGIN OF OUR FUNDAMENTAL IDEAS
LIES EITHER,
I. Within the Mind. SUBJECTIVE.
or
II. Without the Mind. OBJECTIVE.
or
III. Partly Within and partly Without. SUBJECT AND OBJECT COMBINED.
1 IDEAS INNATE. Descartes, Rosmini.
2 FROM PRE-ESTABLISHED HARMONY. Leibnitz.
3 FROM THE ESSENTIAL NATURE OF THOUGHT, as seen
a. IN THE CONSTITUTION OF THE ME. Fichte, and his "Wissenschaftslehre."
b. IN THE ABSTRACT LAWS OF THOUGHT Hegel and the Dialectical Method.
1 IN IDEAL ARCHETYPES. Plato.
2 IN GOD. Malebranche.
3 IN REVELATION.
a. PRIMITIVE. De Bonald, De la Mennais.
b. LOCAL. Huet, De Maistre, &c., &c.
4 IN THE MATERIAL WORLD. Democritus, Hobbes, and the Sensationalists.
1 FROM CONNATE ACTIVE FACULTIES.
a. GUIDED BY SENSATION. Aristotle, Locke.
b. AWAKENED BY SENSATION. Reid, Royer-Collard, Galluppi, &c.
2 FROM INTUITION, in which Subject and Object fall together.
a. INTELLECTUAL. Jacobi, Schelling, &c.
b. PURE APPERCEPTION. Cousin, and Eclectic School.
3 FROM THE LAWS OF THE UNDERSTANDING, as applied to our immediate Intuitions. Kant.
4 FROM THE PRIMARY HARMONY OF THE SOUL AND THE UNIVERSE.
View now proposed.

Now we are far from thinking that these theories consist of just so much fruitless speculation. So far, indeed, from that, we regard them as constituting a series of movements, each one of which has contributed its share to the present amount of light and knowledge we enjoy on the subject. And not only this. Every theory expresses a smaller or greater portion of the *whole* truth, although each from a peculiar and imperfect point of view. Plato's doctrine grasped the great thought, that there is *an ideal* in nature, distinct from the human faculties, and equally distinct from individual existences, towards which all our knowledge tends; but he transferred that ideal into a too transcendental region. The opposed materialistic system has affirmed the undoubted truth, that without *sense* there is no knowledge; it has only failed in attributing the proper degree of importance to the power (whatever that may be) by which the impressions of the outer world are grasped and appropriated. The wholly abstract theorists have planted themselves, in like manner, upon the element of pure thought, taking it as it exists in the mature mind, and neglecting to trace its *genesis* from the more primitive elements of our nature. The various theories, which combine the subjective with the objective elements, are the fruits of a still more advanced state of reflection on these topics; and each of them contributes to throw its own share of light upon the whole problem.

From this it will be easily understood that we are far from propounding any really *new* theory on the origin of our ideas. All we pretend to do is to use the facts and the speculations which have already been disseminated, in order to concentrate the strongest possible light upon the subject,—to grasp, as nearly as we are able, the central idea to which those facts and speculations point, and to interpret them by the psychological method we have propounded. Should that method avail to reconcile the most startling contradictions in the other theories, we shall gain from this very fact some confirmation of its intrinsic validity.

Now let it be borne in mind that we have traced the organic growth of the human intelligence, from its primary germ up to its full development. We have shown, moreover, that its whole nature is contained in that germ *implicitly* from the first, and that by the *explicit* process, it merely unfolds what belongs, strictly speaking, to its own original essence. Every abstract, general, or fundamental idea, therefore, which exists within the human mind, must have emerged from the early intuitive form of mental apprehension; and if traced backwards, by the converse process to the one we have followed, ought to be discovered, rudimentally, amongst the phenomena of our intuitive life.

If this view be correct, it will justify the general conclusion: *That the primary sources of all real knowledge lie within the region of immediate experience.*

At this conclusion many will be inclined to pause with some degree of surprise. Have we, then, after all, it will be said, come back to the old sensational philosophy? After the many attempts which have been made to hold up the validity of reason, intuition, common sense, &c., as a source of truth, must it be confessed, at last, that we can never transcend the bounds of experience, without getting into a land of shadows and abstractions?

Whether we are necessarily driven back to the old sensational school, I reply, has yet to be tested; but, at any rate, one truth has been undoubtingly affirmed by our whole analysis, namely: that we can grasp no reality, by the solitary power of our own understanding or reason. Unless the material is given *somewhere*, all our processes of thought are but a play upon words, forms, and phrases. Experience, accordingly, in some sense or other, must be the universal starting-point of all real knowledge.

But now the inquiry comes, What *is* experience? What is its nature?—what its elements? This is the precise inquiry on which the whole question respecting the primary sources of our knowledge hinges. It is here that all the different theories on the subject begin to diverge; and here alone that we must seek the principle which can lead to their final reconciliation.

To the question, "What is experience?" the sensational school of philosophy has answered as follows: "Man at his birth is a mere blank; his mind is a '*tabula rasa*,' without the least impression or bias of any kind. He is furnished, however, with five senses, which are, as it were, the windows of the soul. Upon these senses the material world operates, in the way of impact or otherwise. The impressions thus formed are conveyed by the nervous system to what we term the mind, and then so re-enstamped as to form *ideas.* These ideas, derived immediately from the world of sense, form the primary material of all our knowledge, and enter, as such, into all its subsequent developments.

This, we say, is the ordinary position of the empirical school; and we have to inquire concerning it, not so much whether we gain *all* our knowledge, primarily considered, in this way, as whether we gain *any of it*—whether the above is a true account even of the most immediate forms of human experience—whether this is not a universal element left out in the reckoning, which gives another complexion to the theory in every possible department of truth.

First of all, then, it has never yet been shown (as we pointed out in the third chapter) that there are any copies or impressions of external things conveyed through the senses to the mind at all. What we apprehend directly from without are the *qualities* of things. These do not reach us by any material impact transmitted to the mind, but simply by their appealing to and awakening an appropriate mental activity. Of a great proportion of qualities, it cannot even be conceived that they are represented to us by a material image or impression; of none whatever can it be shown that such an image really exists as the medium of mental communication. One object excites a perception of colour; another, of beauty; a third, of cold, or heat; a fourth, of pleasure, or pain;—and where, we ask, in such cases is there any room for conceiving the intervention of an actual representation as the link between the mind and the object?

Were the empirical account of our sensible experience true, moreover, it would follow that every man possessing perfect organs would receive precisely the same impressions from the same objects. This, we know, is far from being the case; and the reason of it lies in the fact—that there is something more involved in every instance of experience than a mere mechanical impression. When we are said to know a thing by experience, we have to take into account the inward constitution of the mind, which *knows* as well as the outward relation of the thing which *is known*. No impressions made upon our bodily organs would be of any avail, as far as knowledge is concerned, without an intelligent mind to interpret them; and the moment we take that mind into account, we have another factor which contributes an independent and an indispensible element towards the whole result.

The correct account, accordingly, of the nature of perceptive experience will be rather as follows:—Here is an intelligent mind, on the one side, and there a material world, on the other, while the link which connects them, according to our present constitution, is the bodily organism. The influence of external objects upon this organism puts the nervous system into action, and the direct result of such action upon the mind is a phenomenon which we term an immediate experience.

The nature of this experience, however, depends not wholly—not even *chiefly*—upon the character of the given impression from without, but upon the constitution of the mind which receives it acting in concert with the outward impulse. The possibility, therefore, of any given impulses from without issuing in *knowledge* at all, even of the most purely empirical kind, depends upon the combined working of the subject and the object, and the result, when obtained, is as much due to the effect of our intellectual nature, as are the very highest efforts of abstraction and generalization. If this knowledge be termed empirical, yet it is a very different empiricism from that which starts with accepting the mind as a perfect blank, and then constructs all its ideas from *sensational* impressions. In this case, the primary or unit element is a mere mechanical effect *ab extra;* in the other, the primary or unit element is an *intellectual act,* excited, but not created, by the outward impulse.

It is important for us, however, to inquire how far such experience *extends.* An impulse produced upon our physical organism is not necessarily followed by one particular set of intuitions—those which relate to what are called the physical properties of matter. If the mind be so constituted and duly developed there is no good reason why it should not enjoy an indefinite variety of experiences relating to the *entire system* of the physical, mental, and moral realities, in the midst of which we are placed. A given combination of sounds strikes the ear, and to a mind properly constituted the resulting *experience* is an immediate perception of harmony. A certain arrangement of form and colour meets the eye, and a sense of beauty is in like manner immediately created. In the same way there arises, under the proper outward conditions, a sense of moral fitness and a feeling of religious reverence,—in each case, of course, supposing the mind to be so developed that it can read and interpret, by the light of its own faculties, the intimations which come to it from the outward suggestions of nature and human life.

Thus, in a word, the extent of our immediate experiences is precisely measured by the extent of the mental powers, corresponding with the various relations that exist objectively in the universe, of which we are the subjects, and which, by the proper organic impulse, can be called forth into free activity.

Such, in brief, are the main results, to which our examination of the intuitive faculty before led us, and which now come to our aid in elucidating the question, respecting the true source of human knowledge.

The conclusion to which they infallibly point us respecting experience, viewed as the primary source of human knowledge, is this;—that if experience means knowledge gained by the exact representation within us of external things, then there is *no knowledge whatever* that comes to us in this way; but if experience means knowledge gained by a direct intuition of the mind when excited and directed by a stimulus from without, then all our real knowledge has its first foundation in experience only; while those mental phenomena which fail of this as a basis are either ideal phantasies or formal abstractions. Thus, then, the advocates of experience have been partly right, and partly wrong; right in taking their starting-point *ab extra*, but wrong in overlooking the fact, that the intellectual structure of the mind can alone convert the nervous impulse into a realization of truth.

1. Let us turn, first, for an exemplification of these principles, to those fundamental ideas which have usually been termed the *categories*. Aristotle (the first who ever undertook such a classification) formed his table of categories upon the basis of the logical proposition. Starting from the grammatical view of human knowledge, he took *the proposition* as the absolute type of all truth, and put forth his list of categories as being a classification of all individual conceivable things which could take the place of *the subject*. The nine fundamental ideas, accordingly, of which his table consisted, were, strictly speaking, logical generalizations from the whole mass of our individual experiences as expressed and embodied in words.

Kant proceeded upon a totally different principle.

His categories were simply the *regulative forms* of the understanding, which, when applied to the multiplicity of our sense perceptions, bring them into certain great classes, or unities, and thus form the subjective factors of all human experience. He certainly overlooked the fact, however, that we do not require, in order to possess the most fruitful experiences, any formal ideas of quantity, quality, relation, or modality whatever, but that these are all involved in perception itself, long before they come into consciousness as abstract notions.

In the later idealistic system of Germany the categories have played a most important part. They are there regarded, for the most part, as the *absolute laws of thought*, which not only regulate the mind's inward activity, but which determine the whole realm of existence also, as being but an objective manifestation of thought itself.*

Trendelenburg, who of all modern writers has investigated most diligently the history and the logical signification of the categories,† has pointed out with great clearness the fallacy of supposing, that we can attain any such absolute ideas whatever without starting from some point lying within our actual experience. Every fact of consciousness, he shows, must embody in it the two elements of *thought* and *existence*.

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* This applies especially to the Hegelian categories.

† See his "Geschichte der Kategorienlehre." (Berlin, 1846.)

The point in which they unite, he further affirms, is that of *motion*; so that from that fundamental experience and this idea he deduces all the other conceptions of time and space, quantity, quality, substance, causality, &c., the whole of them being, from the very nature of the starting-point, equally valid in the subjective sphere of thought and the objective sphere of actual existence.*

Although we cannot regard Trendelenburg's deduction of the categories from the one fundamental idea of *motion* as strictly valid, yet the whole view he takes of the question brings us much nearer to a solution of the difficulties in which it is involved. One thing he has fully established, that these fundamental ideas must all spring from the united action of *thought* and *existence* in their primary relations to each other; and so far he has given a clear starting-point for a renewed investigation, the results of which we must briefly indicate.

If we consider for a moment what are the conditions under which anything can be represented or thought in the human consciousness, we shall see that they all result from certain primary *distinctions* and *contrasts*. Where there is perfect uniformity there can be no perception—no representation—no thought. Being itself can only be conceived, as distinguished from consciousness—the thinking from the thought; and all the predicates we can attach to being are simply

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* See "Logische Untersuchungen," vol. i.

points of distinction, by which one thing in the world of existence is made to stand out from the unity of absolute being, and appear as different from something else. Hence the great hinges on which our whole experience of the universe turns are these very *points of distinction*, which separate one thing from another, and give us a consciousness of the multiplicity of objects around us as related or contrasted existences. We have clear ground, therefore, on which to proceed, when we assume these points of distinction —these great criteria of all existing things,—as the foundation of the categories—*i.e.*, as fundamental laws, governing thought, on the one hand, and determining all the modes of physical existence, on the other.

To understand the nature and properties of any given objects in the region of being, they must be distinguished, first, in reference to their quantity; next, to their quality; and thirdly, to their relations. Hence, by making these distinctions, we get the notions of number, size, extension, space, &c. Going a step further, we find things distinguished from each other by their *effects*—*i.e.*, by their action and reaction—by their end and purpose. Here we have the materials which enter into our notions of succession, of power, of causality, and of teleology. Thus, in fine, all the elements of those fundamental ideas, which are connected with the world without, first come to us as being necessary points of contrast, by which we are enabled to apprehend one object in nature as distinct from another.

These contrasts, however, inasmuch as they exist in nature itself, so also present themselves *at once* to the intuitive powers of man. The laws of the soul are constructed in perfect harmony with the world, so that the criteria of real existences—their various quantities, qualities, and relations—their size, figure, extension, succession, force, and purpose, form at the same time the very conditions under which they can be distinctly apprehended by the human mind. Once apprehended, however, as intuitive perceptions, the understanding, by the process we have described, can soon bring them to a clear expression, give them a name and a form, and thus place them before us as *fundamental ideas*—ideas, however, which we now see are all grounded in that immediate experience which flows from the primitive harmony of self and nature.*

The best verification of this view is found in the objective validity of mathematical and physical science. Here we have reason deducing from the materials given in our immediate experience those general laws respecting the relations of number, space, force, and motion, which hold equally true in the world of *thought* and the world of *nature*. Each of these relations, regarded from the objective point of view, is a *noun-substantive*, which stands at the threshold of a distinct and positive science. If any one deny the reality of space as applied either to thought or being, he may set himself to refute the whole of the conclusions of mathematics; if he deny the reality of force or power, let him pull down, first, the entire structure of statics and dynamics. But so long as these ideas hold good in abstract thought, on the one hand, and can be applied successfully to our dealings with the world without, on the other, they have a reality and a verification beyond the reach of any mere metaphysical denial.

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* The substantial points of this view of the nature of the categories were given by Prof. *Ulrici* in a paper read before the Philosophen-Versammelung at Gotha, in the year 1847, and subsequently printed in Fichte's "Zeitschrift" for 1848.

To give a complete table of categories, to show the co-ordination of ideas in it, and the steps by which they are each generated in the progress of dialectical development, does not belong to the province of psychology, but rather to that of logic, as the science of thought objectively considered. Let it suffice now to have shown, that however they may be arranged or deduced, they must all take their stand originally upon our perceptive experience, and derive from thence their whole value and certitude, as applicable to the sphere of *real existence.*

2. For the sake of another, and wholly different illustration of the genesis of our fundamental ideas, let us pass from the region of nature to that of *ethics,* and see how the primary elements of all the truth, here involved, is grounded in our intuitive experience. There are some who affirm that the whole phenomena of our moral life spring from a fundamental *idea* (that

of *the good*), which exists within us, apart from any outward experience whatever. Now, first, that we do actually possess a rational and abstract idea of good, obligation, duty, &c.—wheresoever it may spring from, is a plain matter of fact, which no one who reflects at all can possibly deny. The real question, however, to be considered is this: whether, admitting such an idea to exist, it must be regarded as the *ground*, or as the *result* of our moral experiences.

That it should be the former, may be easily shown, on the principles before laid down, to involve a *psychological impossibility*. Our whole moral life consists in a certain state of mind and heart, including under it a complete system of ideas, impulses, emotions, and volitions. That all these could be elaborated out of a *thought* or notion, can only be imagined by those who have never realised to themselves what a notion actually is, in contradistinction to a volition, an impulse, or an emotion; and have never understood, how much deeper and more primitive in their nature, and in our mental development, the latter phenomena really are, than the former. An abstract idea, viewed alone, is simply the subjective form of a truth, implying a condition of mind which has no immediate community either with the will or the feelings. No possible combination or association of such ideas could *become* a volition or an emotion, or an impulse to action, inasmuch as an entirely different mode of activity (one not belonging at all to the intellect, *as such*,) must be called into play before either of these phenomena could be realised. If it be rejoined, that ideas may, notwithstanding, *excite* to volitions and feelings, we may readily enough admit it. But the calling into consciousness, or activity, of any given voluntary or emotional phenomena, supposes that the inward powers, from which they spring *already exist*, and that the new life they bring into play, was already slumbering within us. Without these, moral ideas (even supposing the possibility of their existing previous to any development of moral feeling,) would originate no moral *life*; would produce no practical impulse to what is good; would be, in brief, but the *form* of moral truth, without the *essence*. They might lead us to abstract speculation, but would only show us the moral world as in a petrifaction or a picture. The abstract idea of right or good cannot, then, be the *ground* of our moral experiences; on the other hand, it is seen from the whole succession of mental phenomena, which we have pointed out, that it will naturally *follow* them; the material of moral truth being primarily revealed in our intuitions—the intellectual form of them being moulded by the logical and scientific faculty.

If the whole sphere of our moral life, however, does not spring from a rational idea, yet may it not arise from the nature and constitution of *the will*; and in this way may it not possess an origin distinct from any human experience, *ab extra*. This faculty, it is said, may be regarded as the most immediate expression of human personality. The will, we are conscious, is *free;* and being free, must possess an intrinsic power of self-government, that is, of giving law to its own actions. The autonomy of the will, accordingly, must involve in it the idea of an imperative, based upon no external motive, but issued, as with the authority of man's whole nature, for the regulation of his practical life. This law, or imperative, affirms Kant, is the real ground of all morality: ***the noblest expression of man's highest nature.***

The above theory, no doubt, comes far nearer to the real elucidation of the question than the former one, inasmuch as it not only points out a source from which we may obtain the *idea* of the good, but explains also the existence and authority of an inward *obligation* to pursue it. If, however, we analyse closely the notion of a *law,* such as that above described, we find two distinct elements contained in it, one an impulse of the will, the other a *sentiment* directing that impulse to a given end. The power of the will runs, more or less, through all our mental operations; but it is only when that power is put forth under the guidance of a deep inward sentiment,—one which approves itself divine by the universal voice and unconscious reverence of humanity,—that it assumes the peculiar weight and authority of conscience. The effort of the will, and the consciousness of freedom are clearly distinguishable from that peculiar mode of intuition under which they are exercised. They alone would not create the idetinctive phenomena of moral life; it is only when they are instinct with the *sentiment of right* that they become really moral in their nature and tendency.

Here, accordingly, as in every other sphere of knowledge, there is *at the root* a blending of the intellectual, the emotive, and the voluntary elements. Take the most abstract moral idea, or the most stringent imperative, and you may trace it backwards into the intuitive sphere, where we shall find that the soul, in consequence of its own immediate contact with human life, becomes conscious in one and the same act of an intuition, a feeling, and of an impulse, in reference to the moral quality of human actions. The first grows up into an abstract moral *idea;* the second into a cultivated moral *sentiment;* and the third into a categoric *imperative;* each becoming more perfectly developed on every fresh stage of our mental life. Experience lies, therefore, at the basis of the whole,—but experience in that higher and spiritual sense, in which alone we have shown it to be a fact of our interior nature.

When once, on the principles of our whole psychology, we have reduced the phenomena of morals to a basis of inward experience, it is easy to see how all the different theories which have been propounded express parts of one higher truth. That outward phenomena are first instrumental in awakening our moral life is perfectly true; but it is not true, as many suppose, that the impression from without *determines* the real features of that life itself.* Again, that moral obligation affecting the will assumes a *categoric law,* or *imperative,* is also true; but it is equally certain that the force of that law is connected with a deep-seated sentiment and a primary intuition of our nature, both of which can appeal for their authority to the universal sympathy of mankind. Finally, that we possess the rational ideas of right, good, virtue, obligation, &c., in their universal or scientific form, is not to be disputed; but these ideas of the reason, like all others, have their deepest root in the primary intuitions, and derive from thence all their material validity. Moral truth thus comes under the same law of development as physical truth. Grounded in experience, it rises first to the region of representative ideas; and, last of all, under the architechtonic power of the reason, clothes itself in the abstract and universal forms of a *moral science.*†

All moral rules and principles which do not start from the intuitive basis, are merely artificial and empty proprieties without life or power; and which, if long retained as the guide of human conduct, become pedantic and offensive. This is illustrated wherever in all the higher literature of fiction and poetry, a healthy moral life is accurately pourtrayed. The charm with which all the purest characters in such literature are invested, arises from the contrast, in which the spontaneous moral feelings they evince are placed with the dead and stiffened conventionalities of society. In the one case we see moral action springing freshly from the primary source in the *heart*, and performing the functions of a moral law, far more perfectly than the law itself. In the other case, we see the slavery of soul, which results from subserviency to *formulas*, where the fountain of moral life has become dry, and the gracefulness of virtue has given way (like nature cut into artificial shapes) to the hollow prudery of rule and fashion.

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* This is the real axiom which lies at the basis of the selfish and utilitarian systems. We have not considered these here because they do not come in direct collision with the principle we are advocating.

† The educability of the intuitive powers perfectly explains the dependence of our individual moral judgments upon human culture; while the growth of the primary intuition into *moral idea* explains the process, by which moral principles come gradually to have a wider range and a more universal application.

The examples we have now adduced may be sufficient to show the manner in which our psychological principles may be applied to the question of the origin of our ideas; and at the same time may exemplify their capacity of reconciling contradictory theories, within the various departments of human knowledge. In every case we are alike repelled from resting in that species of empiricism, which regards all our ideas as grounded in material impressions; as also in that opposite species of idealism, which asserts the power of the human reason to *think* a truth *for itself*, simply by its own subjective force, and independently of any data from without.

We are placed in the midst of a universe, which is the perfect creation of an Infinite Being, and have been furnished with activities of soul that correspond in their whole structure and mode of operation, with the realities they have to grasp, to penetrate, to comprehend. The material impression of things, upon our bodily organs, gives us of itself no knowledge as to what those things really are,—what their properties, their ends, their real meaning and purpose, in the universal plan of nature. This knowledge must be gained by the intellectual structure of the soul itself, harmonized by God for the purpose of seeing *truth* as it exists at once around and within us.

Thus truth, in its essence, is not a mere phenomenon, nor a logical abstraction,—it cannot be received through materially impressed images, neither through empty dialectical forms; it is a *realized idea*, conceived at first in the mind of God—embodied actually in the universe—and then received by the intuitive powers of the human soul, quite apart from any theoretic notions of its own creation. By intuition, we come to know *that which is*—to know it in a direct experience; by reason, on the other hand, we come at length to know what is given or implied in our experience *as a universal truth*. This is, in fact, the most realistic account we can render of the nature of human knowledge: to conceive it under a more concrete aspect is impossible.*

Here, then, we see the exact point, in which modern philosophy is seeking (and that with perfect success), the reconciliation of the empirical and idealistic systems. By a close analysis of what is meant by the term *experience*, we find that in the bare materialistic sense no such thing as experience exists. On the other hand, we perceive that in the only sense in which experience can be in any way verified as a *mental fact;* all human knowledge is based primarily upon it.

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* Mr. Maurice, in his "Historical Sketch of the Ancient Philosophy," (p. 136), vindicates for Plato precisely this point of view. "These (Platonic) ideas," he says, "being by their very nature substantial, must be substantially in him that perceives them. It is only seeking to remove the difficulty a step further back, and falling into contradiction and absurdity in the attempt, to suppose that there are, indeed, forms or ideas of things, but that we have *only notions or conceptions* of these ideas. The idea must be considered itself as *with* us and *in* us: the notion which we form about that whereof it is the idea, when we begin to use our senses, to compare and reflect, must not be identified *with* the idea; but is a witness and proof of its presence, and that we are feeling after it; to realize or possess the idea, is to have the science of the knowledge of the thing. But, then, this assertion must be taken in connexion with what has been said before, and it will be seen at once, that, instead of affirming the ground and root of our knowledge to lie within ourselves, this is the very falsehood which Plato was endeavouring to overturn."

Finally, looking at the structure of psychology as a whole, we are enabled to determine how many different departments of objective truth there are, to which our fundamental ideas may apply. To the three great forms of mental activity, there correspond three kinds of objective relations. To the intellectual powers correspond the qualities of things as substantively existing; to the emotive powers correspond those qualities which are expressive of order, harmony, beauty, and design; to the voluntary powers correspond the qualities of all actions which emanate from free will. The first department gives us the region of the *true;* the second, of the *beautiful;* the third, of the *good.* Reduced to so many philosophical disciplines, we shall have (as Kant has shown,) first, the critic of pure reason; secondly, the critic of the judging faculty; and, thirdly, the critic of the practical reason.

Each sphere of truth finds its ground-work in the intuitive powers of our nature, and can lay claim to a scientific value solely on this basis. Whatever we find springing up spontaneously from this as the source, and then working its way upwards through every sphere of intelligence to the highest form of reason itself, having, moreover, throughout its whole course, a double application to thought, on the one side, and to being on the other: that we may regard as assuredly grounded in *truth,*—truth which is one and eternal, whether in the region of the soul or in the laws of the universe at large.

B. On Absolute and Necessary Truth.

We come now to another question, closely allied to that just discussed, on which every valid psychology ought to shed some amount of light,—the question, namely, whether there is such a thing to man as *absolute* or *necessary* truth. The department in which an absolute certainty, and a positive necessity with regard to our knowledge, appears to be most readily attained and verified, is that of *mathematics*,—and it is here, accordingly, that the contest touching the above-mentioned question, has been chiefly carried on.*

There have been, as usual, amongst metaphysical writers, two opposite extremes in the mode, in which this problem is stated and discussed. On the one hand all mathematical truth has been grounded upon experience, in the baldest sense of that term; and the *necessity* attached to it, has been referred simply to the law of the association of ideas. On the other hand, it has been argued, that mathematics lie wholly apart from experience, that they deal with facts (namely, *perfect* lines, points, angles, &c.) of which the senses can take no cognizance; and that they might be wholly wrought out of the *reason* itself without our ever coming into contact with the exterior world at all.

Now, turning first to the former of these two extremes, psychology, accurately interpreted, shows us that the empirical theorist, under a great show of clearness, is really sheltering himself unconsciously behind the indefiniteness of the very *term* experience itself. Of what nature, we ask, is *that experience*, which can give us the grounds of mathematical truth? and of what elements does it consist? We are placed in a world, the objects of which effect us through our nervous organization. No *images* of those objects, as we have repeatedly seen, ever travel along the nerves, or reach the mind itself. All we can say is, that when we receive certain nervous impulses *ab extra*, we form for ourselves the spontaneous *perceptions* of extension, space, figure, size, &c., which we also attribute, by a like necessity of our being, to things without us.

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* See especially Whewell's "Philosophy of Induction," and Mill's "Logic," in which opposite sides of the question are espoused and defended with unquestionable ability by either party.

Now if we imagine either of these two factors (the internal and the external) to be changed, a complete revolution would be at once effected in the result. If we were placed, for example, in a universe of *thought*, where nothing around us suggested extension or figure, we have no reason to suppose that any such conceptions would ever be formed in the mind. Or, if being placed in a world like our own, man's whole intellectual faculty were altered, the same impulse from without, which we now experience, might be wholly unable to suggest them either. Just as we see creatures around us, to whom no form, or colour, can suggest any idea of *beauty*, and others to whom the harmonious vibrations of the air bring no sense of *harmony*, so also might we stand in the midst of a universe of material objects, and yet, from want of having an inward mental nature corresponding to the world around, might possess no intuition of extension, magnitude, or form.

We admit, then, *so far*, that experience is the basis of mathematical truth; but if to experience be here attributed *a mere contingent force*,—the suggestion of a truth which, as we are constituted, either might or might not be, we can no longer agree with the empirical theory. Lines, angles, circles, and points, it is said, as given in nature, are all imperfect; but the question is, what do these objects, when brought in contact with our nervous organization, suggest to the mind? They cannot suggest *imperfect* ones, without our having, at the same moment, the notion of the perfect figures wherewith to compare them. If they suggest any thing at all in reference to symmetry or order, that suggestion must involve the mental apprehension of perfect figures, perfect lines, perfect angles, &c.; for symmetry and order, *as apprehended by the mind*, are not imperfect as they are in nature.

Amongst all the crystals, *e.g.*, which are given in nature, none forms a perfect angle. But what do they all alike suggest to us? The mind, in gazing upon them, grasps the mathematical law of their structure; sees in it a realization of its own inward reason; and *knows* the perfect type to be an ideal truth, though imperfect exemplars alone have been presented. The immediate suggestion, then, of nature, when lines, points, and circles, &c., are presented to us, is that of perfect lines, perfect points, perfect circles; it is the *deviations* from these, that form the materials of our *contingent* experience; deviations which can only be measured or even conceived of as unsymmetrical, by referring them to the primary and perfect intuitions.

The error of the sensational theorist, then, lies in the tacit supposition, that the state of mind consequent upon every external impulse, must be an exact copy of the outward object. We have shown, on the contrary, that this is *never* the case; that the mind has to meet the outward impression on the sphere of the nervous system, and there to idealize it; and this idealization, in the case of material objects, gives us those *perfect* intuitions of space and figure, which, when rationalized, form the basis of all mathematical truth. Thus it is not reason, in the abstract sense of that word, which reveals to us the truth of mathematical axioms. It is the mind on the sphere of intuition, which first sees their truth as it exists in nature; and it is the abstract understanding, which afterwards casts these intuitive perceptions into the form of axiomatic propositions.

Our conclusion, therefore, is this; that all mathematical truth rests fundamentally upon the harmonious adaptation of mind and nature to each other; an adaptation which enables us, with the most perfect confidence, to apply the conceptions, formed by the one, to the nature and operations of the other. If, therefore, the constitution of things within us, and around us may be called *necessary*, then the truth, springing out of that constitution, may be called *necessary truth* also. It could neither be, nor be conceived, other than what it is, without carrying with it an entire change in the fundamental mode of human existence.

Whilst, however, we do not hesitate to denominate mathematical axioms *necessary* truth, we cannot, properly speaking, term them *absolute*. Truth of this nature, though necessary to our present mode of existence, yet must be regarded as *relative* to it. And not only this; but an intenser power of intuition may still continue to see more fulness of truth in the nature and the application of mathematical forms. Some, for example, have imagined the chemical structure of all bodies to depend upon their atomic *forms*;—so that we may yet learn that the circle, the cube, the spiral, &c., have a more intimate connexion with the reality of things, than we can at present imagine. The necessity of a truth, does not, by any means, involve an exhaustive knowledge of it; but leaves it yet open to future investigation and unlimited development.

This conclusion, though of very little practical consequence in the sphere of mathematics, where a practical application corrects the imperfection of an abstract *theory*, becomes of great importance, when applied to those other spheres of human knowledge, where we need more studiously to follow the safe path between an extreme realism on the one side, and an extreme idealism on the other. To show this, we shall, in conclusion, epitomize our psychological theory in relation to human knowledge, in a few sentences, and point out its importance, as it regards the attitude of our minds towards truth itself.

Man and nature are formed, by the Creator of both, in harmony with each other. The influences which emanate from the world without us, rouse into action mental powers, that are exactly adapted to grasp, to appropriate, and to comprehend them as truth. In this process of immediate experience all human knowledge commences. The great mass of human experiences, however, has been already, in past ages, objectified, and embodied in language. Hence, no sooner do we begin to understand the use of language than a number of composite notions and traditions flow in upon us from this source, and insensibly combine with our own primary ideas. Out of this two-fold supply of intellectual material the human reason forms its convictions; and these convictions, when they attain a certain degree of clearness, uniformity, and universality, amongst mankind at large, assume the title of *knowledge.*

With this account of human knowledge, many, I can foresee, will be dissatisfied. They will look impatiently upon the supposition, that all certain knowledge has to come to us through so long and delicate a process; that it depends wholly upon the strength and validity of our mental faculties, working in connexion with the world without; and that it is, after all, but an approximation to a perfect and adequate expression of truth itself. Cannot we attain, it will be said, to something which may be termed *absolute truth*—truth which is *fixed*, because it is perfect;—truth which is raised above possibility of progress, because it can reach, in its direction, no further? Cannot we from some sources, human or divine, deduce a series of propositions, which, for all men of all ages, nay, which, for time and eternity, shall be an unchangeable expression of the same absolute ideas?

The search after an absolute truth, we reply, has been the great dream of philosophy, in all ages. To eliminate from our knowledge the phenomenal and the transient,—to penetrate beneath the outward appearances of things,—to lay hold of that, which must be for ever enduring, when all else passes away—this has been the passion of almost every earnest speculator, and the motive which has impelled him onwards in his patient and unceasing endeavours. Many has been the mind, which, after a life's struggle, has succumbed to the sternness of the problem, and owned it insoluble;—many the mind, which has been driven, alas! through despair, into universal scepticism; while some, having satisfied themselves with *their own* solution of the problem, and fulfilled every condition which it seemed, to them, at least, to present, have at length, enunciated *a system* which professed to embody the ne plus ultra of human thought, and unfold to the world the unchangeable and eternal truth, which it had been so long striving to reach.

An age, however, rolls away, another epoch in the development of humanity arrives, and what do we then see? We see that the philosophy which satisfied the wants of its own age can no longer satisfy the wants of another—that the absoluteness it appeared to possess only arose from its being a complete expression of the mind of humanity, or, rather, some portion of humanity, at that particular stage of its history,—but that time in its course and labour in its progress ever widen our horizon, and bring new fields of idea to view, which have again to be conquered by a new philosophy, and expressed by a new application of language and logic to the mental experiences thus unfolded.

Accordingly, absolute truth is, to any age, simply *the logical realization of the whole idea which that age contains*; never can it be rendered absolute at once for all mankind, and for all periods of human development.

This will be rendered more evident when we consider, that, while all truth intellectually realized must be embodied in a form of words, neither words themselves, nor propositions constructed out of them, can have a universal force or an absolute signification. Every man occupies some given position in the historical life of the whole race, and is necessarily moulded as to his convictions, more or less by his age, his country, his physical organization, his whole position in time and in nature. There is no such thing as a universal or absolute man, and no such thing, in the concrete, as an absolute reason,—but there are individuals having a given nationality—a given stage of intellectual development—a given type of idea, of which their native language is at once the expression and the organ of communication. Logic, broadly viewed, is the science of language as adapted to express the truth of a people in that mode of speech which the national mind has created; and philosophy, which, in its more limited acceptation, aims at expressing the mind of one particular age, becomes, in its wider acceptation, *the science of history intellectually considered*—the delineation in reflective terms of the human intellect in its whole previous course. Neither logic or philosophy can really lead us to any truth beyond the region of human experience, and the very attempt to construct an absolute truth uninfluenced by the laws of human development, can only end in putting words together, whose total *want* of meaning alone protects them from any progressive elucidation.*

Some might, perhaps, be inclined to fix the charge of scepticism upon this view of the essential nature of truth, urging, that if we are never able to arrive at fixed and absolute results, we cannot be said in strictness to possess *truth* at all. But this is far from being the case. Absolute truth, in the strictest sense, can only exist to an infinite being, who can take in the whole relations of things in one all-perfect grasp of intelligence; but to a finite mind, knowledge must always exist relative to and modified by the extent and perfection of its faculties. If God has so constituted the world of human intelligence that certain conceptions of the universe, moral and physical, shall consecutively arise in its vast intellectual revolutions, if these conceptions become cumulative as one age adds its light to the next, and if all in turn contribute to the great destiny for which we are created, then, so far from plunging into the abyss and despair of scepticism, we are instructed by these very principles to accept thankfully and humbly the light which is granted to us, to use our own faculties in order to increase it, and having done this, to leave the world with the confiding hope of its continued progress towards knowledge, purity, and peace.

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* See "J. G. Fichte und seine Beziehung zur Gegenwart des Deutschen Volks," *passim*, by W. Busse. (Halle, 1848.)

The great antagonism to this view of the nature of truth arises from the completeness and the unity of our logical system. So entirely do the systems of most men express all they have as yet realized in their own intuitive consciousness, that they cannot *conceive* the possibility of human language embodying it more perfectly, or the human intellect rising to a higher view of its essential elements. They do not consider that the systems they hold by are but the perfect expression of *their own point of view*—that a higher development of the power of intuition will bring to light new experiences, which form no part of their present philosophy—that every question, though it changes not in its essential character, will be thrown into new attitudes, and merged into broader principles —and that the only absolute to man, if ever realized, would be the product of the whole human reason in its course from the very cradle of its birth to its final consummation.

Accordingly, in discussing truths of a fundamental character, the point to be settled between antagonist parties is not, which of them is absolutely and unalterably right, and which is categorically wrong; but which has the higher, the fuller, the more advanced view of the whole matter. I own that when the question comes within the province of logical statements, we may attempt to show which out of two given views is logically consistent with certain primary principles, and which not so—which therefore, *relatively* speaking, is correct, and which incorrect. But, then, the settlement of the question must ultimately hinge upon the prior determination we arrive at, *as to the validity of the first principles themselves*; and these, being simply reflective statements of intuitive experiences, will always depend, as to their fulness and breadth, upon the clearness and power of our mental insight. When, however, the question has once come to this point, and is thrown upon the adequacy of our intuitions, then at length there is no longer any dispute about "*absolutely true*," or "*absolutely false*," but only as to who professes the clearest light within, and is most skilled in reading and interpreting the dictates of consciousness in its purest and most perfect form.

Absolute truth, then, if we may be allowed the expression at all, is simply *the ideal* after which we are to strive, and the love of which is to form our great incentive to unwearied intellectual progress. In some subjects we can come much nearer to an absolute expression than others. Where the intuitional elements are extremely simple, where they are almost entirely uniform, and developed amongst mankind at large with almost similar intensity, then we can come to a formal statement, which approaches indefinitely near to absolute perfection. This is the case in pure mathematics, where we have only to take into account the intuitions of number and space. Even here, however, the fundamental truths, though *necessary*, as far as we can see them, are not *absolute*. In the apprehension of the fundamental axioms there is *still* room for incompleteness, on the one side, and for progress in the clearness and adequacy of our intuitions, on the other.

If we go from the region of number and space to some other province of thought, which contains a larger field of intuitive perception, and brings a greater number of simple elements into calculation, then the approximation to an absolute scientific expression becomes still more slow and difficult. Every fresh element which comes into play, in fact, renders the scientific form more arduous to arrive at, and more exposed to error and correction when apparently attained. All the sciences are thus partial revelations of a great whole. The portions that are conquered by the human reason may be perfectly valid, indeed, as far as they reach, and capable of a perfect practical application, but they are still intellectually incomplete; the whole exists as *absolute knowledge* only in the mind of God.

There is one important conclusion we have to draw from this view of the subject, namely, that human knowledge, though never *absolute*, yet is, strictly speaking, *illimitable*. There are two classes of thinkers, who seek to limit the powers of the human mind: 1st, those who affirm the weakness and uncertainty of reason altogether; and 2dly, those who profess that by some method or other (natural or supernatural) they have already attained, in any given direction, to an *absolute knowledge*. The first is an open, the second is a disguised scepticism. The one affirms that we can never realize truth at all, the other declares that we can never realize more than we at present possess.

Against this latter, and by no means unfrequent spirit of scepticism, it is peculiarly necessary for every truly scientific investigator to stand on his guard. When we find a theorist endeavouring at the outset of a philosophical discussion to define what we *can* know and what we *cannot*, or what is the ultimate limit of human insight in this or in that direction, we may be sure that there is some secret hostility to human progress, or some latent scepticism as to its possibility lying at the bottom. The most honest and well-intentioned attempt to define the limits of human knowledge, which probably the human mind ever made, was that of Locke; and we know too well the materialistic scepticism which, in the end, resulted from his procedure.

So also now, when we hear men deprecating a "vain curiosity" in knowledge—chiding the wish to know more than man has yet been able to understand, or to be wise "above what is written," we may be quite certain that, under an appearance of humility, there is disguised an inveterate spirit of intellectual pride, which will not tolerate the idea that it is possible *for others ever to rise above the point to which they have themselves attained.*

The view we have taken of the nature of human knowledge sets aside at once all these artificial and arbitrary limitations. *It shows us that the extent of our knowledge is only measured by the power of our insight*, and that insight, so far from being anything fixed and bounded, is a power which lies wholly open on the side of infinity, and by time and progress may approach eternally and unceasingly towards it.*

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* The phenomena of mesmerism have developed many examples of an exalted power of insight (quite independently of the question of clairvoyance), which gives us some

True, humility, as well as a real love for truth, alike bring us to the conclusion, that we are as yet but on the margin of a vast ocean of knowledge, which stretches itself boundlessly before us. Upon this ocean we have begun to venture, and discovered only here and there a small tract of hitherto unknown land. Every thing around us and within us, nay, the voice of Providence itself, urges us onwards in our search, and assures us that "those who seek shall find." No branch of human truth can remain uninfluenced by each fresh discovery. So closely are all blended together—so insensibly does the light of one region reflect itself upon another—so unquestionable is the unity which lies at the basis of all the phenomena, whether of mind or matter, that progress in one branch implies progress in all, and brings us just so far further on the road towards the ideal, after which we strive. *Human knowledge, though not absolute, is illimitable.* With this motto reason can never rest, and can never despair.

distant idea of intuitive powers of mind that are, in the present state of humanity, wholly abnormal; but which we cannot affirm will be *always* so.

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